# A Clinical Lecture.

## "AGAINST HIS OWN BODY."[1]

*Delivered at St. Bartholomew's Hospital on Jan. 20th, 1915,*

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GENTLEMEN,—The subject which I have chosen for my lecture to-day would appear at first sight to be scarcely germane either to the time or the circumstances. A little reflection, however, will show you that it is not so foreign as it seems. It touches us politically and socially. Politically, because we require the most perfect health possible in every man of the nation to enable him to undergo the wellnigh intolerable hardships of war. Socially, because our losses are so great that the physique of the next generation must depend largely upon the continence of the young men of to-day. The subject, as you know, has already arrested the public attention in a remarkable manner, and henceforward you will be expected to give satisfactory reasons against the practice of fornication.

If you ask me why I should lecture to you on so distasteful a subject I should reply, as the Lord John answered the Queen in that Italian Guazzo: "An old, a grave, discreet man is fittest to discourse on such matters because he hath likely more experience, observed more, hath a more staid judgment, can better discern, resolve, discuss, advise, give better cautions and more solid precepts, better inform his auditors and by reason of his riper years sooner divert them." And that short excuse of Mercerus shall be mine: "Si male locata est opera scribendo, ne ipsi locent in legendo" ("If I have spent my time ill to write, let them not be so idle as to read").[2] But I am persuaded it is not so ill spent. I ought not to excuse or repent myself of this subject on which many grave and worthy men have written whole volumes.

I may say at the outset that the moral aspect of the question does not concern us directly and may safely be left in better hands than mine. I would express my belief, however, that our present standard of sexual morality is much too low, although there is some evidence that it is improving with the spread of education. To-day at any rate I am concerned with the medical and eugenic sides of the question.

### THE PHYSIOLOGICAL ASPECT.

We may start at once with the broad statement that fornication is absolutely unnecessary. There is a widespread belief amongst many classes that sexual connexion is necessary for a young and healthy man. Such a belief is physiologically incorrect. It no more represents the truth than that other belief which long held sway, but is now fortunately exploded, that no man could attain a healthy old age unless he "purged his reins and cleared his head" by getting drunk at least once a month, some said every fortnight. Both suggestions originated with egotistic hedonists and were promulgated by those who were glad of an excuse to cloak their vices.

Virility depends amongst other things upon the internal secretion of the testes which, as you well know, is produced continuously, is reabsorbed into the blood, and is not excreted. The semen or external secretion of the testes is formed in a manner similar to many other glandular secretions in the body. It is stored up in the vesiculæ seminales, and if it is not required a great part is reabsorbed whilst the rest is excreted from time to time by a purely involuntary process. The whole is a reflex action, and it is no more necessary to stimulate the vesiculæ seminales to contract than it is necessary to hawk and spit when saliva fills the mouth. Occasional nocturnal emissions are natural and unavoidable. If they are too numerous it is an indication that the man is thinking too much about sexual matters or that his general health is disturbed. Nature is quite able to take care of herself in regard to the seminal secretion, and it is wholly unnecessary to resort to fornication to help her.

You may safely assure any young man who asks your advice that fornication is a dangerous and unnecessary expedient, and you may further warn him that if he once begins it will be extremely hard to become continent again, whilst if he remains chaste the sexual appetite will remain dormant without in any way deteriorating. In the end, too, he will be healthier, he will be more likely to marry for he will have a better opinion of women, he will have a happier married life, healthier children, and he will be free from the remote and often painful effects of those diseases which are known as venereal. You may also assure him that fornication is no more an evidence of manliness than is smoking or drinking. All three are the false ideals of youth and a bygone age. Who of you did not think at school that it was a manly thing to smoke? Did not the lower classes endeavour to express the summum bonum of aristocracy when they said that such a one was "as drunk as a lord." Lapse of time has changed our ideals in both cases, and we know that manliness connotes very different attributes.

Promiscuous intercourse degrades immediately by causing loss of self-respect. "Post coitum omne animal triste," said Aristotle, and the more introspective pass through a purgatory which is out of all proportion to the satisfaction they have gained, the pain being partly regret for their folly and partly fear for the possible consequences. This loss of self-respect would be bad for the community if it was limited to the man; it is made ten times worse by the fact that it is shared by the woman and often drives her to very desperate courses. Much has been written about the mentality of the prostitute, public as well as clandestine, and it is agreed that whatever her physical attributes may be she differs widely from the average type of woman in the race to which she belongs. In Europe she is often a sexual degenerate in spite of the highest social gifts, or she may be the most degraded of all animals like the woman who earned £30 a week by receiving 40–50 men a day. Consort with such persons does much to destroy happiness in subsequent married life even if the husband has remained free from disease. The sexual instincts of the prostitute are directed towards the gratification of lust or the acquisition of money; those of the healthy-minded woman, so far as they exist at all before marriage, are towards motherhood, the means being secondary and ill-understood. Indeed, they were well expressed by the little girl who, when asked what she was going to do when she grew up, replied boldly that she was going to get married, have a baby, and then

[1] Flee fornication. Every sin that a man doeth is without the body; but he that committeth fornication sinneth against his own body.—I. Cor. vi. 18.

[2] Burton's Anatomy of Melancholy, part iii., section i., memb. i., subs. i.

kill her husband that she might have the child all to herself.

### VENEREAL DISEASE.

If these were the only arguments against fornication we might well be contented to deal with the whole matter privately, as we have to deal with other filthy practices which merely concern the individual. We should be neither better nor worse off than in the pagan times when philosophers wrote and argued against it in vain. There is now an added danger of catching and transmitting disease. This danger is very great, for in the year 1908 no less than 1959 prostitutes examined in Berlin were found to be diseased out of a total of 2944; whilst in Cologne in the same year only 247 were found healthy out of 600. Even the unaffected women were only relatively healthy and were not capable of infecting at the particular time they were examined. Sooner or later all become diseased. A Wassermann test proves that prostitutes are immune to syphilis because they already have it; and they are sterile as a result of inflammatory conditions associated with gonorrhœal infection. Every man, therefore, who practises fornication runs a risk almost amounting to a certainty that he will get gonorrhœa or syphilis or both. Either or both diseases may follow a single lapse, and may be productive of life-long misery to himself, to the woman who is unfortunate enough to become his wife, and to the children of the marriage. Through him the State, too, may suffer a grievous injury.

Of the three diseases which can be caught from fornication—viz., soft sores, gonorrhœa, and syphilis—I have told you repeatedly that soft sores are neither more nor less than poisoned wounds and must be treated as such. Their danger lies in the fact that they may be associated with a coincident syphilitic infection, masking its existence and causing active treatment to be unduly postponed.

Gonorrhœa is a more serious disease than it is usually supposed to be. It is serious to the individual during the acute stage by incapacitating him from work, later by crippling him from joint disease. It is very difficult to cure, and if a stricture results it may shorten his life by causing retention of urine, cystitis, and disease of the kidneys. Because of the difficulty of cure a man may give the disease to any healthy woman he marries. She may thus become a permanent invalid, and may remain sterile as a result of the inflammation from which she has suffered, although in many cases the sterility is caused by the double epididymitis of which the husband has been the subject. Children born whilst the mother is still uncured frequently have such a severe purulent inflammation of the eyes that the sight is impaired or may be completely lost. The State, therefore, is greatly damaged by the gonococcal infection of the family; it loses the services of two generations either wholly or in part from a cause which is easily preventable.

Syphilis is even more harmful both to the family and the State. It often paralyses and lands its victims in an asylum with the most incurable of mental disorders; it predisposes to tubercle and cancer, and it shortens the expectation of life. Unfortunately, it does not render the man sterile, as often happens in gonorrhœa, and the disease is transmitted to the children. They may either be born dead, or those who survive may suffer from serious illnesses which leave them with lasting evidence of their father's incontinence as well as a depression of their natural physical and mental activity. Syphilis has the farther disadvantage as a disease because there are periods when it is acutely infectious, and during these stages a man may infect his nearest and best friends in the most innocent manner, as by kissing or using in common a pipe or a glass.

It must be clearly understood that these diseases are not contracted only from mercenary prostitutes—the ordinary street-walker. They are equally, or perhaps more, likely to be obtained from the very dangerous class who are known as clandestine, or occasional, harlots. These women are much more ignorant in sexual matters than their more hardened sisters. A gonococcal infection to them is merely an attack of "the whites," and the initial manifestation of syphilis is only "a boil." They do not know that they are ill, and they do not consequently seek advice to be cured.

### THE QUESTION OF PREVENTION.

The risks attending fornication, therefore, are very great, but they can be absolutely avoided by continence. Much rests with the individual, though he ought to be helped by the State, whilst as members of the medical profession I conceive it to be part of our duty both to the individual and to the State to teach the elements of sexual physiology, and by so doing to diminish the diseases which cause so much damage.

A healthy-minded man does not become unchaste without a struggle, and when he has been warned of the risks he usually has the sense to look forward and not imperil his future health and happiness. His natural modesty comes to his assistance, and he neither goes out of his way to look for a prostitute nor does he deliberately endeavour to seduce a virgin. Some day, however, he takes a little too much alcohol. He does not get drunk, but he takes enough to lower his self-control. He is "picked up," as he will tell you, by some loose woman on his way home, and from that evening he dates his downfall. The temptation acts with especial force at the present time, when the young men of the country are separated from the good influences of home, and are herded in camps with many thousands of companions of their own age. The result is already beginning to show itself, and in some places more than in others. It behoves everyone, therefore, who is in a position of authority to set an example of probity in sexual matters. They should remember that venereal disease and the illnesses which result directly from them are very common causes of invaliding men out of the army; that at the present time every soldier is needed in the best of health and that it is of vital importance that preventable wastage should be prevented.

It goes without saying that a young man who is happily engaged to marry a sensible girl of his own age and station in life is not so likely to yield to temptation as his less fortunate comrade. He has the satisfaction of thinking that if she is willing to wait for him he can exercise equal restraint. It is needless, too, to point out that the less a man concentrates his thoughts upon his sexual appetite the less it will trouble him. The time is fast coming when it will be thought as bad form to tell a "smutty" story as it now is to swear. We have it on excellent authority that our army swore terribly in Flanders, and our fathers have told us how prevalent was the habit even as late as the Regency period and the early Victorian days in England. The spread of education, bringing with it a larger vocabulary, has enabled us to express our feelings

more adequately but with less blasphemy. There is very little doubt that with more to talk about and a wider range of interests the dirty story will suffer a similar eclipse. Pornographic literature already finds fewer adherents, whilst, thanks to the admirable writings of such men as Anatole France, the cult of the old-fashioned "French novel" and its "realistic" successor is dwindling rather than extending.

Were I asked in what way the State could best help to stop the spread of venereal disease I should answer without hesitation, Put the law against solicitation into active operation. At present it is a dead letter, and the streets of our large towns are a disgrace to the community. The women who frequent them must be well known to the police, for they may be seen day after day in the same streets. They will certainly continue their trade, but the men will then have to look for them, and many a youth will be protected from temptation. Knowledge, too, is a powerful help. The physiology of the generative system is no more a mystery than the physiology of digestion or respiration, and there is no reason why it should not be explained in a scientific manner as a part of a course of biology. Let the women teach the women—there are plenty of well-taught women nowadays who are fully equal to the task—and let the men instruct the men. The teachers themselves must be carefully chosen not only for their knowledge but for their general attainments, which should be sufficient to put their facts in proper focus.

### TREATMENT.

If, as unfortunately happens only too often, a man finds that he is infected with venereal disease, he should be taught that in his own interests as well as in those of the State he ought to go at once to a doctor. Every day that he delays lengthens the duration of his cure and may even prevent it entirely. Quacks and unqualified practitioners should be carefully avoided. They may have empirical knowledge, but they lack the scientific basis which every qualified man must have in some degree. Their object is to obtain as much money as possible, and they consequently prolong the cure and work upon the fears of their unfortunate clients; indeed, of all quacks the unqualified specialist in the treatment of venereal diseases has the worst reputation. The doctor, on his side, must not assume a repellent attitude. It is his business to cure, not to moralise, and to remember that the diseases run on the same lines as any other infective disorder. He must be especially careful to make a correct diagnosis especially in syphilis, where immediate treatment alone holds out a prospect of cure. For this purpose he must avail himself of scientific tests, and must not rely solely upon clinical diagnosis. He should warn his patient from the outset of the particular dangers which are likely to arise and of the manner in which the diseases are spread. Above all, he must point out the necessity for patience, since it is only by a prolonged course of treatment that a real cure can be effected. We have now long passed the stage when the disappearance of symptoms and signs was thought to be identical with eradication of the disease, and we have learnt that the worst effects have followed a conscientious but insufficient treatment. By these means you will gain the confidence of the patient, and when you have gained his confidence the battle is half won. He will follow your advice, and if he has come early enough you can soon put him well on the road to complete cure.

## THE BLACK (PIGMENTED) APPENDIX.[1]

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IN THE LANCET of July 19th, 1913, p. 135,[2] I described a series of four cases in which a very unusual amount of pigmentation of the mucous membrane of the appendix was found after its removal for disease. Three of them were sketched, and I am able to produce the illustrations for the inspection of the section; the fourth appendix was mounted by Mr. Shattock and is also shown. It differs from the others in the fact that there has been a great destruction of tissue towards the distal extremity.

With the exception of the case of extensive pigmentation of the large bowel, due to lead deposit, described by Dr. G. Newton Pitt,[3] I did not know of any similar appearance at that time. Recently, however, the subject of pigmentation of the bowel has been referred to by Sir J. Bland-Sutton,[4] who found a very blackened state of the mucous membrane of the bowel in a woman suffering from obstruction due to cancerous growth of the large intestine. The cause of this pigmentation could not be ascertained, for the patient recovered. He refers in that address to an article by Dr. Ludwig Pick[5] (which had escaped my notice) in which Dr. Pick refers to two cases of pigmentation found in English publications (besides that by Dr. Pitt), both of which were caused by the deposit of mercury in the tissues. 1. The case (described by Dr. C. J. Williams) of a woman, aged 74[6], who had taken mercury regularly for 43 years. Here the submucous tissue of the large intestine from the ileo-cæcal valve to the rectum was mottled like the skin on a toad's back. The patient had rectal prolapse before death, and the mucous membrane was seen to be deeply pigmented when extruded. 2. The case of a man, aged 64,[7] who had been under treatment for syphilis. He presented a similar pigmentation of the large bowel dependent on a deposit of mercury in the mucous membrane. In this case, which was described by Dr. H. D. Rolleston, there was no evidence of pigmentation during life.

The contribution to the subject which I wish to make now consists of two cases of marked pigmentation of the appendix met with in women of different ages and circumstances. Their residences were far apart in Berkshire and Worcestershire, whilst of the four other instances already published three came from inside London and one from Kent. The cause of the phenomena must therefore be very widely distributed.

CASE 1.—The patient was an unmarried lady, aged 48, who was seen in consultation with Dr. L. M. Guilding on April 30th, 1914. The medical history was a long one. Since the age of 13 she had been delicate, and for years past constantly under medical treatment. Since the age of 21 she had always suffered from constipation, and the bowels had not acted without the use of purgatives. She had complained of indigestion for years, sometimes worse and sometimes better; of late years she had of necessity been very careful as regards her diet. In 1899 the cervix uteri was divided for dysmenorrhœa. In 1900 she had symptoms of

[1] A paper read before the Surgical Section of the Royal Society of Medicine, Jan. 6th, 1915.
[2] The Black (Pigmented) Appendix. Battle.
[3] Pathological Society's Transactions, London, 1891, p. 109.
[4] Presidential Address of the Medical Society of London, THE LANCET, Oct. 17th, 1914, p. 931.
[5] Verhandlungen der Berliner Medicinischen Gesellschaft, 1911, p. 181.
[6] C. J. Williams: Pathological Society's Transactions, London, 1867, p. 3.
[7] H. D. Rolleston: Ibid., 1892, p. 69.

inflammation of subacute character which were said to have had their origin in the right ovary and broad ligament. Ever since the operation in 1899 she had had occasional attacks of pain and tenderness in the right iliac fossa, during which there had sometimes been vomiting. In some of these attacks the pain was more in the upper part of the abdomen. In 1904 she had an attack which was described as acute ovaritis on the right side, and had felt "uncomfortable" on that side since. In 1911 she had an attack of "neuritis" in the right arm, which lasted nearly the whole year. She was also under treatment for colitis and a toxic condition towards the end of that year, and this was resumed for varying periods during 1912 and 1913, finishing in March, 1914. Before 1914 the right iliac fossa was not much in evidence; after the beginning of that year she had four attacks of pain and tenderness in that region, one of them being severe and accompanied with a rise of temperature and other signs of inflammation, but without vomiting. She had become thin, sallow, and pale, with a persisting tenderness over the appendix region. The diagnosis previously given was that of a chronic appendicitis with probable ileal kink and chronic intestinal stasis.

An examination by the X rays after a bismuth meal had been carried out and the following points were established: 1. A delay in the passage of the bismuth through the cæcum. 2. The ascending colon and transverse colon were distinctly dropped, and there was considerable stasis in the passage of the bismuth all along the large bowel. 3. Considerable loss of tone in the rectum. Here the bismuth lodged and distended the part, having to be evacuated by means of enemata.

When I saw her in April I agreed with the diagnosis of subacute inflammation of the appendix, with want of muscular power in the large bowel and rectum. She was rather feeble, delicate, and "tired-looking." The abdomen was slightly distended, generally tympanitic, and tenderness was complained of on examination of the right iliac fossa. Operation was performed on May 2nd, 1914. The appendix was about 3½ inches long, slightly adherent at the tip. The meso-appendix was shortened at one point, and there were chronic catarrhal changes with submucous fibrosis. The mucous membrane was of a uniform brownish-black colour, due to the deposit of pigment. From the abrupt termination of this at the place where the appendix had been cut off it was quite evident that a similar condition extended into the cæcum. The intestine did not give any evidence of this on inspection. The right ovary was atrophied and the tube normal. A membrane united the transverse and ascending portion of the colon at the hepatic flexure, making a somewhat sharp and fixed bend. It appears to have been derived from the right margin of the omentum. This membrane was divided, and a few vessels in it were ligatured. The cæcum was somewhat larger than usual, with a tendency to drop towards the pelvis. The ovary and tube were removed. Recovery was uneventful.

CASE 2.—This case was also met with last year. On May 17th, 1914, I operated for Dr. A. A. Brockatt, of Malvern, on a young unmarried lady, aged 27, who gave the following history. Five months before she had had an attack of appendicitis which lasted five days. Two months before she had suffered from a second attack which lasted seven days. There had been some occasional pain between the attacks, but otherwise she had not been ill. She always suffered from constipation. Nothing abnormal was felt on examination, but there was some tenderness in the right iliac fossa, and she stated that pain had been present there the previous evening. The temperature was normal. The appendix when removed was found to be 5½ inches in length, bulbous, and red at the top from recent inflammation. The meso-appendix was shortened at one point. The mucous membrane was pigmented, the shade deepening in intensity to the line of section, where it was quite black. There was submucous fibrosis. No adhesions were present. No other abnormal condition was found. This appendix was lost.

These two cases, together with those already published, make a series of six which present some common features. In the first place there was an extensive brownish-black pigmentation evidently not limited to the appendix, but spreading an unknown distance into the large bowel. The patients were all of the female sex (aged 27, 30, 32, 43, 48, and 48) and in each there was a history of constipation of long standing, which amounted to intestinal stasis in more than one of them according to their medical attendants. It would appear as if in some the difficulty with the bowels had led to a secondary inflammatory affection of the appendix. Operation in each was for the relief of pain caused by this. The pigmentation was found on examination of the removed appendix, and in only one was there any appearance of darkening of the bowel as examined from the operation incision. Microscopical examination showed the deposit to be both in and between the cells of the mucous membrane (Shattock).

Chemical analysis of the first three specimens by Mr. Le Sueur showed that the pigmentation was produced by a deposit of iron, the exact combination not being defined owing to the small quantity of material available. There was no bismuth, lead, or mercury present. In only one patient was there any history of the taking of iron medicine, and she had been given the compound syrup of the hypophosphites (¾ gm. ferri hypophosph.). There is very little, if any, tendency to pigmentation of intestine by iron given in the form of medicine, otherwise the condition would be frequently met with in the post-mortem room. And we should have had many references to it in our medical publications.

From the fact that I have met with these six cases within a comparatively short period there is a probability that it is more common and widely spread than we have suspected. The question arises as to the source from which the iron has been obtained. There can, I think, be very little doubt that it is derived from wheat flour prepared by the iron rollers which are used in the modern process of milling. These rollers are fluted, and the fluting wears down somewhat quickly, and although measures are taken to prevent iron particles from entering the mill none are taken to remove the iron dust and small particles which come away as a result of the rubbing of one roller against the other. The method of grinding with iron rollers was once applied to the manufacture of light-coloured pigments for painting walls, but had to be given up because of the brown patches which appeared on the walls to which such paint was applied. The rollers wear away more quickly in the grinding of wheat, especially that grown abroad, which is harder than ours, than in the preparation of pigment. Chemical examination of a quantity of best flour has shown the presence of an abnormal amount of iron, although none could be separated from the flour by means of a magnet.

I have already alluded to the fact that no measures are taken to extract the iron from flour prepared by these rollers, therefore there is a considerable quantity being taken into the alimentary canal by the population at large. It is very probable that the increased amount of troublesome constipation of recent years, which in some cases is described as "stasis" and ascribed to a kink of the bowel, is due to this cause; kinks possessing a clinical value are in my experience very rare. It would be interesting to know from the experience of the physicians whether anæmia is any less common than it used to be.

I think that it may be possible that fæcal concretions are helped to form by this ingredient of flour, but it is not possible to say much on the subject. I have submitted several concretions to

the chemist for examination, but the result of examination for iron is negative; there appears to be very little in them.

The question of the influence of roller milling in the causation of appendicitis is one which has interested me for some years. Facts are accumulating to show that it is a serious factor, but this is not the occasion on which to consider it. There is, however, very little doubt that in addition to the small sharp particles which result from the disintegration of the fluting of the rollers, and which sometimes cause localised ulceration of the mucous membrane, there is a considerable amount of "iron dust," which is given out in such quantities that in certain individuals it can produce an actual blackening of the mucous membrane over extensive portions of the large bowel. This pigmentation is more extensive than could be produced by blood extravasations, and is more uniformly diffused.

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## THE THEORY OF SALICYLATE THERAPY IN RHEUMATIC INFECTION.

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ANY theory formulated to explain the action of the salicylate group of drugs in acute rheumatism has one great difficulty to overcome. It is briefly this. In some rheumatic manifestations, notably arthritis, salicylate is so successful in its action as to suggest strongly that the drug has an inhibitory power over the activity of the infecting organism; while in others, particularly chorea and carditis, such a power is by no means obvious. It is this so-called "selective" action of salicylate on the various manifestations of rheumatism which is responsible for the variety of views held upon its method of action.

In a recent paper[1] I studied some of the practical objections which have been urged against the use of salicylate as a "specific" remedy in acute rheumatism, but purposely refrained from discussing the truth of the theory on which it is based. Here it is intended to support this "specific' theory, using the word "specific" as implying that the drug has the power of diminishing the activity of the rheumatic infection; the argument adopted being that this theory becomes acceptable when, but only when, the method by which the rheumatic infection produces its various results is properly understood.

### *Modus Operandi of Rheumatic Infection.*

The modern view of rheumatism is that it is due to an infection by a particular type of micro-organism. This can be supported on strong clinical grounds as well as by the results of bacteriological research which are still unaccepted by some authorities. How this infecting organism produces its results has been made clear by the histo-pathological researches of Coombs,[2] supplementing earlier work of Poynton and Paine and others. He finds evidence that rheumatic infection is a bacteriæmia which results in three sets of tissue changes: 1. Interstitial inflammatory changes of a peculiar and characteristic type in the organs attacked by the infection. 2. Parenchymatous toxic changes from toxins produced from foci of infection, either local or distant. These changes reach their maximum significance where important tissues, such as the cerebral cortex or myocardium, are involved. 3. Sclerotic changes connected with healing processes.

### *Modus Operandi of Salicylate Treatment.*

It is evident that a drug possessed of the power of diminishing the activity of the rheumatic infection could not control these three sets of tissue changes with equal success. 1. The inflammatory processes should be well under the control of an antirheumatic drug. Assuming that the foci of infection were open to the drug circulating, its only limitations would be concerned with the virulence of the infection compared with the amount of the drug which could operate. 2. The toxic parenchymatous changes, on the other hand, could not be under the direct control of the drug. All that such a remedy could do here would be to cut short the supply of toxin at its sources, and thus prevent further damage. 3. The sclerotic changes obviously cannot be influenced by an antirheumatic drug, and need not be further discussed.

Clinically, then, salicylate, if possessed of a specific antirheumatic power, would control such rheumatic manifestations and symptoms as are dependent upon active inflammatory processes, but could only indirectly influence those dependent upon toxic parenchymatous changes. I must now review the chief rheumatic manifestations, attempting to show that their reaction to salicylate conforms to this theory.

*Arthritis.*—The histological changes here are those of acute inflammation of the infected tissues within and around the joint. Toxic parenchymatous changes are of minimal importance here, as there are no "noble tissues" whose degeneration might produce symptoms. Under salicylate treatment there is a rapid subsidence of the local signs of inflammation together with a fall in general temperature. This last is of special importance, particularly when it is remembered that such a fall in temperature is not produced so markedly nor so constantly in any other infection, and therefore cannot be due merely to the slight general vasodilatation caused by salicylate. A fall in temperature, occurring in conjunction with local amelioration and general constitutional improvement, is generally held to be the best evidence of diminished bacterial activity, and it is certainly difficult to account for the success of salicylate in the treatment of rheumatic arthritis except by allowing a specific antirheumatic action to the drug. Another result confirms this view—namely, the way in which salicylate puts a stop to the development of arthritis in other joints which is so characteristic of the untreated infection.

There is one limitation to the successful action of salicylate on rheumatic arthritis—that concerned with large effusions. These may remain for a week or so before disappearing, even though the temperature has fallen and the other local signs have cleared up. The fluid obtained, however, from a joint at this stage will be found not only to be sterile but to show practically no cells. It shows, that is to say, no signs of bacterial activity, and it is evident that no antirheumatic drug could have an action upon such an effusion. Its absorption is necessarily and mainly a matter of time.

The action of salicylate on rheumatic arthritis shows well how the drug successfully controls such symptoms as depend upon bacterial activity, and

fails to control such as persist after all signs of such activity have passed. The antirheumatic action of salicylate is seen at its best in rheumatic arthritis because it is here that the symptoms due to inflammatory change are at a maximum, and those due to toxic parenchymatous change at a minimum.

*Chorea.*—In chorea we have histological evidence of two sets of changes in the central nervous system: (*a*) perivascular inflammatory changes from the presence of infecting organisms; and (*b*) toxic changes in the cells of the cerebral cortex. Before discussing the action of salicylate we must consider how far each of these sets of changes is responsible for symptoms in cases of chorea.

In certain acute febrile cases it is clear that we are dealing with an actual infection of the central nervous system. Poynton and Holmes[3] have produced post-mortem evidence of this, which has been corroborated by Coombs. It is also confirmed in some non-fatal cases by the discovery of streptococci and cells in the cerebro-spinal fluid during the acute stage of the disease. On the other hand, it is probable that many slight cases of chorea are due to a rheumatic cerebral toxæmia rather than a cerebral infection. Of much more importance, however, is the recognition of the fact that the nervous symptoms of chorea may persist long after all rheumatic bacterial activity has ceased either in the brain or elsewhere, being dependent upon the damage already done by the infection to the cerebral cortex. That this is the case is shown by the normal (or subnormal) temperature and the normal cerebro-spinal fluid in many cases still showing the nervous symptoms of chorea.

No antirheumatic drug, therefore, can put an end to choreic movements. The most it can do is to diminish the activity of the infection, relieving such symptoms as are directly dependent upon such activity, and thus to limit the supply of toxin which damages the cerebral cells. These latter are then in a position to undergo repair, which when accomplished relieves the nervous symptoms. The fact, then, that salicylate cannot "cure chorea" in no way invalidates the theory that it has the power of diminishing the activity of the rheumatic infection. Indeed, the generally accepted view that salicylate is useful in chorea where signs of active infection (fever, pains, arthritis) are present is in accordance with this theory. When these have ceased salicylate, no matter in what large doses, can do no more to check movements, and at this stage treatment should aim at restoring the structure and function of the cerebral cells by rest, feeding, re-education, and such measures.

*Carditis.*—Here again we find two sets of tissue changes: inflammatory changes in the valves, pericardium, and interstitial tissue of the heart muscle, with toxic parenchymatous changes in the myocardium. Of these it is now generally recognised that the latter are productive of most of the ordinary cardiac symptoms, the inflammatory changes producing such symptoms as fever, friction, and possibly certain murmurs. The usefulness of salicylate, however strongly antirheumatic its action may be, will therefore be limited in carditis as in chorea. We cannot expect it to relieve the symptoms due to myocardial degeneration any more than we can expect it to remove the signs of mitral stenosis; on the other hand, we must expect evidence of its power to diminish the activity of the infection in the heart and the symptoms dependent upon it.

Such evidence will be forthcoming to anyone who has used salicylate to test this particular point. But very convincing cases are not numerous, because in children most cases of acute carditis show evidence of severe toxic myocardial degeneration, and in adults many are associated with a severe failure of myocardial power. Perhaps the most striking cases are seen in adults who, with a recent history of rheumatic arthritis, show fever, a quickened pulse, and a mitral bruit without much cardiac dilatation. In such cases, which appear to be examples of acute carditis in which the inflammation is acute but the parenchymatous changes slight, salicylate successfully reduces the temperature to normal and puts an end to the infective process. Similar results may sometimes be seen in first attacks of endo- or peri-carditis in children where there is no considerable dilatation of the heart. Even where the myocardium is severely degenerated the patient's temperature will often react to salicylate treatment if well tolerated, but this will not be associated with any immediate relief to the symptoms of cardiac dilatation.

This inability to cope with the myocardial degeneration and the symptoms thereof constitutes the first limitation to the practical use of salicylate in cardiac rheumatism. But there is a second, again associated with the state of the heart muscle. I have shown elsewhere[1] that the amount of vomiting produced under salicylate treatment depends much more upon the state of the heart than upon the dose of the drug employed. Where the heart is only slightly affected vomiting is only troublesome in 4 per cent. of the cases, and now that the proper methods of administration are better understood practically should not occur. On the other hand, where the heart is much affected, particularly where it is severely dilated, troublesome vomiting occurs in about 30 per cent. of the cases, and in a large proportion of these is directly attributable to the drug, even though very small doses are employed.

*Nodules.*—These consist of macroscopic collections of inflammatory products, probably the results of bacterial emboli in end-arteries. We cannot tell how long a nodule may be expected to remain, so that we cannot tell if salicylate directly hastens their absorption. In investigating the theory of salicylate action the matter of rheumatic nodules does not assist us. All that one can say is that if salicylate can put an end to rheumatic activity it is probably doing all that is possible to hasten the disappearance of nodules. I have elsewhere[1] discussed nodule formation as a rheumatic relapse under salicylate treatment.

*Pyrexia.*—As in other infections the temperature in rheumatism is a most important index to the activity of the infection. The fall in the temperature in the rheumatic arthritis of adults, coinciding as it does with marked local and general improvement, gives the strongest support to the specific claim of salicylate.

On the other hand, there is often seen, particularly in cases of cardiac rheumatism, a "saw-like" temperature with about 2° difference between the morning and evening readings, the latter reaching 101°–2° F. This is sometimes referred to as the fever of the "rheumatic state," but it denotes, I am convinced, some activity on the part of the infection. It is often stated that salicylate does not control this type of rheumatic pyrexia, but in my experience it is usually satisfactorily modified by

an increase in the daily dose of salicylate to, say, 100–120 gr.

In more severe cardiac cases, where there is evidence of advanced myocardial degeneration, a different form of temperature is often seen. It is characterised by being very irregular, usually keeping below 100°. How far this is dependent upon bacterial activity it is difficult to determine; possibly in many cases it is due rather to the absorption of toxic material from degenerated myocardial cells. At all events, salicylate has seldom any beneficial action here even when used without causing symptoms of intolerance, which are so quickly aroused in cases of this type.

In practice I have come to lay stress upon the regularity or "saw-like" feature of the temperature. Where this is absent and the temperature is seldom above 100°, I think severe cardiac cases are little benefited by salicylate, and may easily be harmed by it if nausea or vomiting be induced. But where the temperature is persistently raised at night, even though the evening temperature is quite low, I prefer to continue with salicylate if possible, as I think that under these circumstances there is some smouldering activity of the infection present. My chief reasons for this conclusion are: (*a*) that this type of temperature usually develops from a similar saw-like temperature of higher grade; (*b*) that relapses of pyrexia are frequent; and (*c*) that the patient's improvement is seldom satisfactory until this type of temperature ceases.

In some instances rheumatic hyperpyrexia can be reduced by salicylate, but here it is evident that we are dealing with an extremely virulent infection and with usually but little time in which to attempt to control it.

Taken as a whole, therefore, and with due allowance for the difficulties connected with parenchymatous cell changes, the action of salicylate upon the pyrexia of the rheumatic infection is in accordance with the theory that the drug has the power of diminishing the activity of the infection.

*Tonsillitis.*—Acute rheumatic tonsillitis appears to react well to salicylate treatment. The chronic forms, in which the organisms are buried deeply in the glandular crypts, cannot be expected to be much under the control of any drug circulating in the blood stream. This is of importance, since histological evidence suggests that in human rheumatism there are repeated reinfections of the blood. If these come, as is commonly assumed, from the tonsils, it is evident that an antirheumatic drug, if it could not destroy the organisms at their source, could only do so after they had gained access to the blood stream. This perhaps explains some of the relapses that may occur in patients recently under salicylate treatment or while the drug is being given in small doses.

*Other manifestations.*—Acute rheumatic nephritis and bursitis, both probably due to local infection, react well in my experience to salicylate. Rheumatic anæmia, on the other hand, is a toxic change and can be only indirectly benefited by the drug. It is noteworthy that this state is not improved by the administration of iron until the activity of the rheumatic infection is at an end. True rheumatic rashes are so irregular in their appearance and disappearance that the effect of salicylate upon them is hard to judge. Erythema nodosum and the so-called peliosis rheumatica I do not regard as truly rheumatic. "Rheumatic iritis" is excluded from the rheumatic group by many authorities, with whom I am inclined to agree.

*Other Theories of Salicylate Action.*

The "specific" theory of salicylate action in rheumatism which I have supported above is probably widely held, although possibly not always with a just appreciation of exactly what it entails. On the other hand, it is well known that some of those most interested in rheumatic problems are strongly opposed to this view, and it is therefore necessary to examine briefly opposing theories.

*Antitoxic theory.*—A. E. Garrod[4] has suggested that salicylate possibly possesses the power of neutralising rheumatic toxin rather than of attacking the infecting agent. Thus he writes:—

> Can it be that they [the salicylates] exercise an antitoxic rather than a bactericidal action? It must be granted, as Professor Stockman has pointed out to me, such a conception finds no support in the established facts of pharmacology, and that no parallel example can be quoted of a neutralising effect of a simple chemical compound, administered as a drug, upon bacterial toxins; but neither can any other instance be adduced of such selective influence of a drug upon certain of the manifestations of a disease of bacterial origin.

F. J. Poynton[5] seems to favour a somewhat similar view, more elaborated. Thus:—

> I believe the bacterial poisons are so subtle that they vary with the tissues in which the lesions occur, and I think it probable that salicylates may possibly be specific to some of them and not to others.

In addition to the difficulty already quoted by Garrod, an important argument against the truth of this antitoxic theory lies in the fact that it is diametrically opposed to the evidence afforded by the histo-pathology of rheumatism. As I have attempted to show, it is those symptoms which are dependent upon inflammatory processes that are well controlled by salicylate, while those due to toxic parenchymatous changes are comparatively unbenefited. It would therefore seem that a bactericidal rather than an antitoxic action would best explain the "selective influence" of the drug.

*Partial-specific theory.*—This view, for which I cannot find a more satisfactory name than that given, is widely held. A couple of quotations will demonstrate the theory. A. F. Voelcker[6] writes: "We are not justified in regarding the salicylates as a specific for any and every rheumatic affection." Again, A. Abrams[7] writes: "Salicylates have a specific action only on the articular manifestations."

We must here pause to remind ourselves that the term "specific" may be applied to a remedy in two senses. It may be employed as meaning merely "peculiarly efficacious." Used in this sense, although the above statements become defensible, they are of little theoretical interest since no explanation of the drug's action is attempted. Employed, however, in connexion with a remedy for an infective disease, the term "specific" is usually meant to express that the drug has a bactericidal power of some sort over the infecting agent. Used with this meaning any "partial specific" view becomes full of difficulty. For if the modern view of rheumatism as a definite infection attacking various organs of the body be correct, it is clearly illogical to presume a bactericidal action on the organisms attacking one part of the body and to deny it to those producing similar lesions elsewhere. The only explanation of such a selective action would be that in some organs the foci of inflammation become "closed" (as in tuberculosis) and thus unapproachable to a circulating drug, and of such a process there is no histological evidence; indeed, the inflammatory foci appear closely connected with dilated vessels.

The only possible alternatives to the specific view would appear to be either the "antitoxic theory" already considered or the "non-specific theory" to be discussed immediately. Poynton, who admits the difficulty, is drawn to both alternatives, but apparently is not well satisfied with either. To quote the passage in full[5]:—

I do not dispute that some rheumatic lesions, notably arthritic and muscular pains, are greatly relieved and the temperature is lowered by these drugs, but further than that I am not prepared to go. How can such a position as mine be justifiable? I believe the bacterial poisons are so subtle that they vary with the tissues in which the lesions occur, and I think it probable that the salicylates may possibly be specific to some of these poisons and not to others. I am even tempted to feel that their specific action upon rheumatic arthritis is perhaps overrated, for I have seen other acute forms of arthritis relieved by them. It does not follow, I think, because acute rheumatic arthritis subsides rapidly that it is the salicylates which produce this subsidence though they may relieve the pain .....

*Non-specific theory.*—It might be logically held that salicylate has no power to control the activity of the rheumatic organism wherever displayed. Some are drawn to this view, although nowhere can I find it very definitely put forward. How far Poynton is prepared to go in this direction has already been shown. L. G. Guthrie[8] may also be quoted:—

Salicylates relieve pain and lower temperature. I do not think they cure rheumatism and am sure they do not avert cardiac affection. ..... Drugs may palliate but do not cure either rheumatism or chorea.

Before such a view can be accepted some explanation of the reaction of rheumatic arthritis to salicylate must be forthcoming, particularly in connexion with the fall of temperature, which, when accompanied by local and general improvement, is usually accepted as strong evidence of a lessening activity on the part of an infection. The only alternative to allowing a specific action to salicylate here would seem to be to deny that the drug acts any more successfully upon rheumatic than on any other form of infective arthritis. And this would be against general experience; for, although everyone has seen some lowering of the temperature under salicylate in other infective conditions, yet it is generally acknowledged that as regards its degree, constancy, and permanence the fall of temperature in rheumatic arthritis under the drug is peculiar.

*Chemical Support of Specific Theory.*

Space will not permit me to do more than refer to Stockman's important article on the Action of Salicylates in Rheumatic Affections,[9] in which he shows that the antirheumatic power of salicylate and chemically allied drugs depends upon the relative positions of the carboxyl and hydroxyl groups. He writes:—

The action of salicylic acid in acute rheumatism is undoubtedly specific. It is of little or no therapeutical value in other febrile diseases, and it exerts no action on the healthy man from which one could infer its action in rheumatic fever. But besides clinical evidence the chemical evidence points conclusively in the same direction.

*Conclusion.*

That salicylate has the power of diminishing the activity of the rheumatic infecting agent may be taken as the working basis of salicylate therapy in rheumatism, and the drug should be administered with the sole view of controlling the bacterial activity. Of this the temperature chart is as accurate an index in rheumatic as in other infections (e.g., tuberculosis). Care must be taken to discriminate between symptoms directly due to active rheumatic inflammatory processes and those dependent upon toxic parenchymatous changes which may remain long after all bacterial activity is at an end.

*Note on dosage.*—The temperature chart is the guide to the dose of salicylate to be employed. Used solely with a view to controlling bacterial activity, the effective range of dosage for child or adult is usually from 60 to 120 grains per diem. Less than 1 drachm daily is rarely sufficient; more than 2 drachms need seldom be given. Much larger doses than these have been shown to be safe if properly administered, and if necessary to gain control may be used, but for the most part "massive" doses have been administered in cases of chorea in which there was no evidence of bacterial activity remaining.

Any dose greater than 100 grains daily should be given, as Dr. D. B. Lees teaches, subdivided into 10 doses in the 24 hours. Large infrequent doses should never be given, particularly in children. Constipation must be avoided. The sodium salicylate should be combined with an equal dose of sodium bicarbonate; I have not found the double quantity of soda necessary in doses of this grade. Vomiting in cases of severe cardiac dilatation may be difficult or impossible to prevent, but in other cases may be avoided for the most part. The more serious symptoms of salicylate poisoning (acid intoxication) should nowadays never be allowed to arise.

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Harley-street, W.

## DRY CUPPING IN LARYNGEAL AFFECTIONS.

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FOR some time I have been using dry cupping of the external surface of the larynx and adjacent area of the neck with very beneficial effect in some laryngeal affections, but I can find no record in laryngeal literature of its employment for this class of disease. That dry cupping should not have been used for the relief and amelioration of laryngeal trouble is the more remarkable since it is so readily and so easily applied, and the anatomy of the parts, particularly the blood-supply, lends itself advantageously to such treatment.

The best and most easily worked apparatus for regular and systematic dry cupping is a suction apparatus (tankless), an American instrument, the agents for which in this country are Messrs. Rouse, of Wigmore-street. There are two sizes of this machine, the No. 20, with three cylinders suitable for consulting-room work, and the smaller portable one, which I have found quite sufficient and most useful at the bedside. I have had cups made of various sizes and shapes for adaptation to the front and sides of the larynx, and have found it best to have the edges of the cups covered with rubber so that any inconvenience the patient might feel when the suction is strongest may be minimised. Some of these cups are half-moon shaped, others horse-shoe shaped. Suction can be applied effectively to one or both sides of the larynx simultaneously. There is an adjusting mechanism on the instrument by

which the suction force can be varied from an equivalent of 5 to 100 lb. air pressure.

The vascularity of the larynx is favourable to the process of dry cupping, as the vessels enter and pass out at definite sites. There are two chief and two subsidiary sources of arterial supply, and the veins and lymphatics accompany the arteries almost exclusively. The box of the larynx, chiefly made up of the two wings of the thyroid cartilage, has no vessels perforating its immediate sides, but they pass into it above and below. Above the superior laryngeal arteries pierce symmetrically the thyro-hyoid membranes, being branches of the superior thyroid arteries. Having entered the interior of the larynx they spread out like the roots of a plant in the submucous tissue of the inner laryngeal lining. These branches are mostly directed to the posterior aspect, and in the lower half of the area of the thyroid cartilage meet similar ramifying branches coursing up from below—viz., those of the inferior laryngeal artery, which has similarly pierced a membrane, the crico-thyroid. The inferior laryngeal artery is a branch of the inferior thyroid and also has its intralaryngeal branches directed to the posterior part of the lining of the larynx. While the superior laryngeal veins follow closely the same artery, the inferior laryngeal veins chiefly join the more centrally situated inferior thyroid veins. The subsidiary vessels are the crico-thyroid arteries, one on each side, which spread inwards from the superior thyroid arteries as they pass down to the thyroid body. These two small vessels run in horizontally from each side on the crico-thyroid membrane and meet and anastomose in the middle line. Branches pass from them through this membrane and spread out freely in the lining of the anterior aspect of the larynx. There is in this manner a special blood-supply given to the anterior part of the lower region of the larynx which compensates for the large distribution of vessels at the posterior part, to which the superior and inferior laryngeal arteries are mainly directed. The lymphatic vessels similarly pass through the membranes above and below the thyroid cartilage, following the blood-vessels more or less closely. Those accompanying the superior artery go into the superior deep cervical lymphatic groups of glands, while those with the inferior pass to the inferior deep cervical glands. There are other lymphatic vessels which pierce the crico-thyroid membranes directly and join small lymphatic glands lying on the surface of this membrane. No vessels, either arterial, venous, or lymphatic, pierce the wings of the thyroid cartilage.

The anatomical arrangement of these arterial, venous, and lymphatic vessels has an important bearing on the application of dry cupping. It indicates that for the most effective relief of vascular and œdematous congestion of the interior of the larynx the cups must be correctly placed anatomically to get the maximum result. The cups should, therefore, be applied over the posterior half of the thyro-hyoid membrane and over the crico-thyroid membrane both laterally and in front. In this way there can be brought about a lessening of intralaryngeal congestion, both by retarding the entrance of blood and by facilitating venous and lymphatic circulation outwards, and so relieving venous and lymphatic engorgement.

I append brief notes of four cases.

CASE 1.—The patient, a man of middle age, was sent to the clinic by his medical attendant on account of difficulty of breathing. He was found to be suffering from well-marked inspiratory dyspnœa, especially on lying down and on exertion. On inspecting the larynx the vocal cords and their movements were found to be normal, but a subglottic swelling was seen on the left side bulging into the air-passage. There was some tenderness on pressure over the left thyroid cartilage and a fulness filling up the hollow in the lower part of the inferior carotid triangle. He was taken into the hospital at once, as some of the dyspnœa attacks had been so severe that there seemed a likelihood of tracheotomy being required. Dry cupping was used, the cups being placed on the left side over the thyro-hyoid membrane, on the front of the larynx over the crico-thyroid membrane, and lower down over the position of the lateral swelling and at the position of the entrance of the inferior laryngeal artery into the larynx. After the first application he expressed himself as feeling more comfortable, saying that he was breathing more easily and that the sense of suffocation had diminished. He was in the hospital some weeks, and learnt to apply the cups exactly and to use the apparatus regularly night and morning for himself. The subglottic swelling became much less prominent, and this seemed to be a result of the cupping. It was subsequently found that Wassermann's reaction was positive and he was put on potassium iodide, when he still further improved.

CASE 2.—The patient, a man aged 22 years, suffering from well-marked laryngeal tuberculosis, came to the hospital complaining of difficulty of breathing and swallowing, and of pain in the throat. The epiglottis and vocal cords were seen to be swollen and ulcerated, and the arytenoid apices infiltrated, red, and inflamed. Dry cupping was made use of over the crico-thyroid and the thyro-hyoid membranes on both sides and at the lower and lateral parts of the larynx. The pain was much relieved, and he swallowed a glass of milk with greater ease than he had done for a very long time. The dry cupping is being applied every morning at the hospital, where he is now under treatment.

CASE 3.—A man, aged 32 years, who worked in a dusty warehouse, had contracted a head cold followed by partial loss of voice and marked hoarseness. On inspection the interior of the larynx was seen to be very congested and somewhat swollen over the ventricular bands, the vocal cords being red. Dry cupping was applied over the usual positions with marked improvement of the hoarseness, and the vascularity of the larynx could be seen to be distinctly lessened. After two more applications the voice became normal.

CASE 4.—A young woman, a private patient, was sent on account of loss of voice and pain deep in the throat (larynx). The vocal cords were seen to be much suffused, but approximated well on phonation. Dry cupping having been applied over three positions on each side, the pain ceased and her voice returned. I think that this was a case of catarrhal laryngitis, but there may have been an element of functional aphonia.

When first commencing the treatment it is well to apply it for a minute only at the longest until one observes the effect on the skin, as some patients, having very susceptible skins, are liable to get ecchymosis. Others, as in the case of these just cited, can bear the cups on the skin for quite five minutes without any visible mark being produced and even a reapplication without the skin becoming very deeply reddened at the site of suction. I have now used the cupping method in a considerable number of cases with good result. This treatment might even be useful in such cases as laryngismus stridulus (laryngeal asthma) in young children where there is a spasm of the muscles of the larynx and vascular engorgement. The mucous membrane of the larynx is thin and closely adherent on the true vocal cords, but more vascular, thicker, and loosely adherent over the other parts. It therefore quickly becomes congested, swollen, and even œdematous, as in acute laryngitis. Dry cupping might be advantageously employed, but I have not yet had an opportunity of trying it under such conditions.

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# SOME USES OF STATIC ELECTRICITY IN MEDICINE AND SURGERY.[1]

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THE effects of static electricity may be summarised as being chiefly but not entirely mechanical, just as those of the constant current are chiefly due to the carriage of ions by the current, and those of high frequency are chiefly due to its heating effects. Static electricity may be converted into high frequency or into X rays, but in either event it loses its static quality in whole or in part. I do not think any effects due to the carriage of ions can ever be obtained from static electricity. Other therapeutic effects are ascribed to static electricity such as its suggestion effects. There are therapeutic effects of static electricity other than mechanical, to which I will refer more particularly later. I do not know what they are due to precisely, but I am sure they are not due to suggestion.

I will deal first with the mechanical effects and will begin with the static wave current, the most generally useful current there is. An electrode is applied to the bare skin of the patient, who is seated on an insulated platform. Special electrodes are applied to special parts. This electrode is attached by a wire to the positive pole of the machine, the negative pole is grounded, and the machine is started. The spark gap is then opened. If the machine is properly regulated a spark travels across the gap at the rate of 120–200 a minute. In the intervals of the spark the patient is filled like a Leyden jar with static electricity. When the spark crosses over the gap he is discharged at one point, the part with which the electrode is in contact. The effect of this sudden discharge at one point or in one small area is a violent commotion of all the tissues in the neighbourhood of that point. It is, in fact, a deep massage of all the tissues, but intensifying towards the electrode. Theoretically we should expect such a commotion of the tissues to relieve stasis. Practically we can see it do so. If we take a case of simple chronic synovitis of the knee-joint we have an ideal condition in which to study results. In such a case, often in one treatment, usually in three or four, an obvious and marked reduction of the swelling takes place. So impressed am I with the results obtained in these cases that if I did not see and the patient did not feel a marked improvement after three or four treatments I should suspect that the diagnosis was wrong and that I was dealing with a tuberculous joint. Having said and seen that the effect of this treatment is to relieve stasis we have but to ask ourselves, In what pathological states have we stasis? to arrive at a conclusion as to the kind of case in which static electricity is useful.

I do not wish to enter into the pathology of lumbago, sciatica, or brachial neuritis. I am not qualified to do so if I did wish it, but any of you who have been plagued with these troubles know that there is something in the muscles or nerves which ought to be eliminated. This treatment I know from experience in my own case and that of many others will eliminate it.

An enlarged prostate can be reduced and the symptoms due to it relieved. Here are the notes of a typical case. The patient, aged 57, had had symptoms of enlarged prostate for five or six years; he rose three or four times a night to urinate. There was a very small amount of residual urine. Per rectum the prostate was found to be moderately enlarged, its consistence somewhat firmer than normal. The static wave current is used with a metal rectal electrode which has a concavity which rests against the posterior aspect of the prostate. The part of the electrode opposite the sphincter is insulated. Treatment was given for 20 minutes daily. After eight treatments I have the following note: Patient retired to bed at 10.30 P.M. Got up and emptied bladder at 2 A.M. Awakened from habit and not by his bladder. Did not wake again until 8, when he got up. After 16 treatments he arose once only at 5 A.M. He remarked that his stream was less crooked and stronger. Some of these patients progress to complete alleviation of symptoms; others have to rise once at night instead of four or five times. In a majority of cases there is some improvement.

A subinvoluted uterus can be contracted. Dysmenorrhœa is often relieved. I have reduced enlarged livers and enlarged thyroid. An enlarged spleen can be reduced. In rheumatoid arthritis of the knee I have had considerable success; in that of the hip-joint I am sorry to say no success. There is in fact a wide variety of chronic conditions and a few acute ones such as sprains where the static wave current gives good hope of prompt relief.

If, as I believe to be the case, the static wave current relieves stasis by the commotion set up by the interruption of the current, how much greater and therefore more effective must be the commotion set up by the static spark. Here the whole charge resident in the body of the patient rushes to an exit at one small point, the point of exit of the spark. That sparks are most efficient is seen in cases where such indurations as synovial thickenings get softer and less marked from day to day. Unfortunately I must add, however, that I have had no success with them or with anything else in the treatment of the most obvious indurations of all—i.e., those around the knuckles in rheumatoid arthritis of these joints. I believe that failure here may be due to the fact that these joints are too tender to allow of the application of a really effective spark to them.

Another effect, and a very important one, of the static spark is the relief of spasm in muscles connected with inflamed nerves and joints. Sometimes these muscles can be felt to be in a state of spasm; at others the inability to make certain movements discloses it. For instance, I had a patient recently under treatment who could not use his deltoid at all. This was after a fall from a bicycle, when he fell on his hand and doubtless bruised the muscles around the shoulder-joint. After a few sparks applied to the deltoid region he immediately had much more use of the muscles which raise the arm to a right angle. Next day it was as useless as ever and again immediately responded to the sparks, and so again the next day. After the third day the improvement continued. It seems to me that only spasm could account for such immediate recovery and loss of power again next day.

The following is the arrangement of the static induced current. Two Leyden jars are connected by their inner coatings to the two poles of the static machine. From each of the outer coatings a

[1] A paper read before the Hampstead Medical Society.

wire leads to an electrode connected to the patient. On starting the machine and separating the discharging rods the patient is subjected to powerful oscillatory discharges from the jars. I use this current chiefly for the treatment of another form of stasis about which we hear much—intestinal stasis. With one jar attached to a rectal electrode and the other to an abdominal a powerful current passes between the two, and that it causes contraction of the unstriated muscle of the intestine is shown, I think, in the resultant relief of the constipation which is often obtained. Not all cases of intestinal stasis can be relieved in this way. I have, however, cured one case of 25 years' standing with colitis of five years' standing. Until she had this treatment the patient had had no normal evacuation of the bowels for 25 years. Other cases have done well. Failures, however, occur. In one subsequently operated on by Sir Arbuthnot Lane the patient told me that the large bowel, which was removed *in toto*, was in a very diseased condition and quite incapable of recovery. When I saw him last he was feeling quite well and was about to proceed to the front.

Another use of the static induced current is to stimulate muscles which have degenerated from one cause or another, as in cases of anterior poliomyelitis. I believe it is more efficient for the purpose than faradic or sinusoidal. The mechanical effects of static electricity are obtained even when the current is broken up, if I may so describe it—that is, when the electricity instead of travelling in a massive spark is broken up into a spray as in the static brush discharge, or is broken up in another way as in vacuum tubes, glass tubes, that is, in which there is a partial vacuum. The static brush discharge is used for treatment of stasis in parts which are too sensitive either from inflammation or locality to permit of the use of the wave current. A gouty toe, for instance, is sprayed for half an hour with manifest relief resulting to the patient. In treating a varicose ulcer the effects can be watched. At first as the current is applied some blanching of the skin takes place. This must be due to a preliminary contraction of the arterioles due to stimulation of their muscular coats. Soon relaxation follows, and a more permanent reddening of the skin results. As we watch the ulcer we see an exudation of plastic lymph appearing on the base, and after half an hour's treatment I usually derive the impression that the ulcer is smaller and more shallow. However that may be, the patient will usually tell you next day that the pain is better, and after a shorter or longer series of treatments healing takes place. This current is most useful in the treatment of chilblains, acne, and I once used it with gratifying success in a case where a hypertrophied, scaly condition of the skin followed on a prolonged irradiation with radium. The discharge breaks up the air into ozone and nitrous oxide, both of which are antiseptics.

The vacuum tube discharges are used when we wish to obtain an effect stronger on the one hand than the static brush discharge effects, and weaker than the static wave current. They are particularly useful in searching for tender points in a case of neuritis. These, if not too deep, are quickly detected by this means. In the treatment of neuritis of the supra-orbital or infra-orbital nerves the vacuum tube is very useful, as also in the treatment of acne, herpes zoster, and other skin conditions. Specially shaped vacuum tubes are used in the cavities of the body, some for rectal use for fissures and inflamed piles, others for vaginal, urethral, and so on.

I mentioned at the beginning of this paper that there were other therapeutic effects of the static currents which I could not explain as being due to mechanical causes only. First there is the sensation of well-being derived from treatment by the static wave current by a certain number of patients, but not by all. This is quite well marked, and a patient who feels these effects will probably refer to it without being asked. Patients certainly retain a part of the charge after treatment ceases, as is shown by the fact that one can sometimes get a spark out of them, and I suppose this extra charge suits some people. In addition, there is an increase of the urea output in the urine, so that I suppose metabolism is increased. There is also the deep massage effect above referred to. More important effects are those derived from the static bath. In this the patient is seated in a chair on the insulated platform, which is connected to the negative part of the machine, the positive being grounded, the spark gap is opened wide and the machine run slowly. The patient has no sensation except of a gentle breeze or of the hair standing on end. From 20 minutes to half an hour of this treatment is most soothing to the nervous system, leads to quiet sleep in those suffering from insomnia, and is generally useful in quieting down people who have been worked up by worries and anxieties or who are suffering from nervous irritation due to other causes. I use it, for instance, on patients who have complained of sleeplessness or too much exaltation following on treatment with the static wave current. Lastly, the most useful application of the static brush discharge is its application in cases of neurasthenia. People who are depressed, cannot sleep, suffer from dyspepsia, are anxious, easily tired, worried by business, &c., are they to whom this treatment is applied.

The brush discharge is applied up and down the spine for 20 minutes to half an hour daily for two weeks. In the second week an amelioration of the symptoms begins, and then the treatment is intermitted, given three times a week, then twice, and finally stopped. Sometimes it works like a charm. I remember a lady who had a headache daily and a severe headache which necessitated retirement to bed every two weeks. She began treatment, I recall, just before Derby day, and had a violent headache after seeing the Derby at which a suffragette was killed. She had the course of treatment above outlined, but somewhat interrupted by social duties. I saw her in the following October, and in the whole of that interim she had had no headache that a dose of acetyl salicylic acid would not arrest, and very few of them.

I conclude, then, that we have in the various applications of static electricity methods of treating a variety of conditions, medical and surgical, not all of which do well under the ordinary methods of treatment in vogue.

Welbeck-street, W.

LITERARY INTELLIGENCE.—The Cambridge University Press announce for early publication the third edition of Shipley and Macbride's "Zoology," which has been thoroughly revised and in parts rewritten. The newer discoveries in the laws of inheritance are dealt with in the introduction and there are many new illustrations.

## CONGENITAL LYMPHANGIOMA SITUATED OVER THE STERNUM.

BY JOHN A. C. MACEWEN, M.B., C.M., B.SC. GLASG., F.R.F.P.S. GLASG.,

SURGEON TO THE ELDER HOSPITAL; ASSISTANT SURGEON, GLASGOW ROYAL INFIRMARY; SENIOR ASSISTANT TO THE REGIUS PROFESSOR OF SURGERY, UNIVERSITY OF GLASGOW.

IN THE LANCET of July 19th, 1913, a case of large dermoid cyst occurring over the sternum was reported by me, and the one now to be described resembled it in situation and in being congenital and cystic, but the patient was younger and the appearance of the tumour very different.

The patient, a girl aged 8, was admitted to the Elder Hospital in September, 1913. Her mother stated that she had a birthmark of about the size of a bean, which had always been white and soft until recently, and which was situated over the sternum. A few weeks prior to admission the tumour first became hard and of a blue colour, and then rapidly enlarged, becoming red and inflamed as it did so. On admission a large cystic tumour was seen, situated in the middle line, over the sternum, commencing about 3 inches below the episternal notch, and extending downwards a distance of 3½ inches. The tumour was pear-shaped, with the stem directed downwards and inclined to the right side; its greatest breadth was 2½ inches, and it projected fully an inch from the surface. That it was cystic was apparent on superficial examination, and tense fluctuation was marked. On close inspection the skin over the tumour, which showed no evidence of inflammation, was found to be thin and stretched, and it was seen to contain small superficial bluish pearl-like cysts in places. The condition was painless and did not occasion any marked discomfort.

An operation was performed on Sept. 24th. An oval incision was first made so as to remove the area of affected skin. On carefully deepening the incision a sac wall was seen, which was thin, pearly, and translucent, and which contained fluid, the appearance strikingly resembling that of the tunica vaginalis testis when exposed in the operation for hydrocele. An attempt was made to remove this sac entire, but it was firmly adherent to the subjacent tissues, and, unfortunately, ruptured when almost freed, several ounces of clear amber fluid escaping. The tumour extended down close to but did not involve the sternum. The wound was stitched up, and the child made an uneventful recovery.

On examination of the tumour it was found that while the largest cyst had been ruptured, there were a few much smaller ones also present, in addition to those in the skin itself, which have already been referred to.

Dr. J. Anderson, pathologist to the Victoria Infirmary, Glasgow, very kindly made sections from various parts of the tumour, and reports as follows:—

The epidermis is very variable in thickness and in outline, small papillary projections appearing at places. The horny layer is scanty, and the Malpighian varies as to thickness and interpapillary processes. In one section a small cyst is seen in the epidermis, resembling an eruption cyst, which presents an endothelial lining and thin fibrous wall, and is supported by cells of the Malpighian layer to the inner and of squamous to the outer aspect. The contents are mucinous and present several lymphocytes. The true skin is atrophied as a whole, although apparently increased as compared with the Malpighian layer, and the apparent increase is added to by the presence of inflammatory proliferation of connective tissue and a few lymphocytes. There is a scarcity of glands generally, and particularly of sebaceous glands. Small mucinous areas, cyst-like in character, are seen in the deeper layers of the corium, often surrounded by inflammatory foci, and slightly larger cysts of the same character are found in the fatty tissues. Some of these cysts present marked hæmorrhages from their walls into the interior. The fatty tissue is, as a whole, well represented, and at places there are hæmorrhages into it, and also inflammatory infiltrations of the stroma. The margin of the large cyst presents a well-defined wall composed chiefly of fibrous tissue, but containing a little unstriped muscle fibre, and is richly vascular, the vessels in places being engorged. It is lined by flattened endothelium. I consider the condition as one of lymphangioma.

Glasgow.

# Clinical Notes:

## MEDICAL, SURGICAL, OBSTETRICAL, AND THERAPEUTICAL.

### AN EXTRAORDINARY ACCIDENT.

BY T. O. THOMPSON, M.B., B.CH. OXON.,

LIEUTENANT, R.A.M.C.; FORMERLY CASUALTY HOUSE SURGEON, RADCLIFFE INFIRMARY, OXFORD.

THE patient, a man aged 34, was admitted into the Radcliffe Infirmary, Oxford, on Jan. 28th, 1914. He had fallen 7 feet off a haystack on to a pointed handle of a hayfork, which produced a wound 3 inches long in his scrotum. This did not appear to extend beyond the skin and dartos muscle. He complained of pain in the right side, but no lesion or any bruising could be found on the right side or the arm. Two days later the pain was less severe, fomentations having been applied. On the next day pain at the right nipple was felt on coughing, and breathing friction rub was heard. The breath sounds were not affected, and there was no obvious dulness on percussion.

Three days later the patient developed a fluctuating area under the right pectoral, which on evacuation contained purulent blood effusion and two pieces of straw 3 inches and 6 inches long. This area was drained freely and the patient improved. Two days later another subcutaneous abscess formed mid-way between the right nipple and the right side of the scrotum. This was opened and drained, and proved to be a long purulent track. Later a piece of hay was removed from each abscess cavity. The patient continued to become worse, the temperature rising and the respirations becoming more rapid. An extensive œdema of the anterior chest wall occurred with an inflamed area internal to the right nipple. This was freely incised but no pus was found. The patient developed bronchopneumonia and died.

A post-mortem examination showed a complete subcutaneous track from the wound in the right side of the scrotum to the infraclavicular region, with putrefaction along the whole track, and under the pectoralis major a cavity in the same condition in which were found wedged in one corner a piece of tweed cloth from the man's trousers and some straw and hay. There was inflammation of the right side of the neck and lower face and the whole anterior chest wall. The second rib was fractured and osteomyelitis was present. The spleen was almost fluid, while the heart was flabby. There was pleurisy, with solid œdema of the lower lobe of

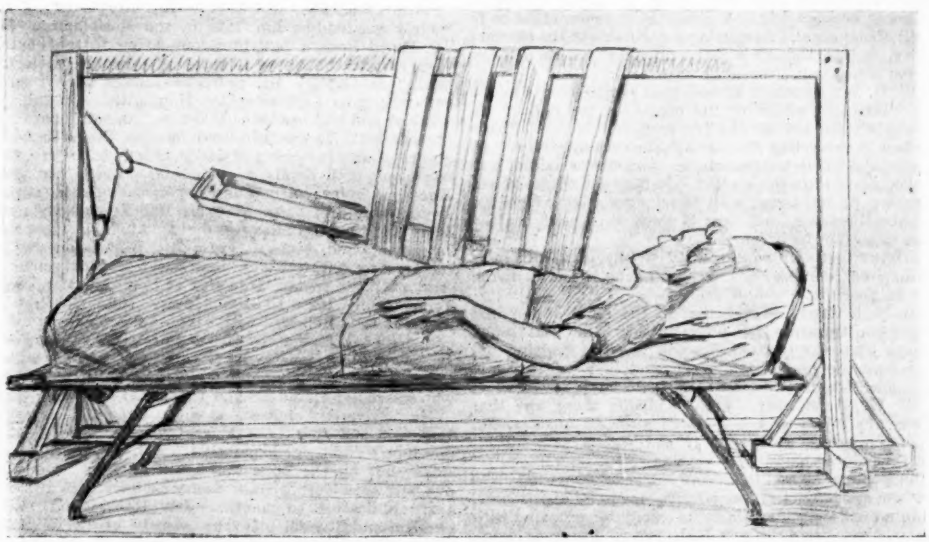
the right lung; and on the left side (three lobes) pleurisy and early broncho-pneumonia.

This case seems to show a remarkable accident. The pointed broken handle of a pitchfork pierced this man's scrotum; it was deflected by the pubic bone into the anterior abdominal wall and so on into the chest wall. He must have doubled himself up when the point was in the abdominal wall, thus causing it to pass anterior to the ribs, through the pectoralis major origin, and finally to stop at and break the second rib, where it deposited the cloth and hay. At the inquest evidence showed that a fellow workman pulled some 2 feet of handle out of the man's body. The patient then "walked" three miles home and drove ten miles to the hospital. Presumably the correct treatment would have been to lay open the whole track, but there was no evidence until the formation of the abscesess that the fork handle had made any further injury than that in the scrotum.

## A SIMPLE SPLINT FOR FRACTURES OF THE UPPER EXTREMITY.

BY M. W. B. OLIVER, M.A., M.B., B.C. CANTAB., F.R.C.S. ENG.,
LIEUTENANT, ROYAL ARMY MEDICAL CORPS.

THIS splint has been devised for the treatment of compound fractures of the upper extremity, and it is especially useful in cases where there is an extensive wound requiring much dressing. It is also extremely useful in cases of simple wounds in which there is no fracture. The splint consists of a horizontal wooden bar supported by an upright at each extremity of the bed. The arm is suspended from the horizontal bar by means of flannel slings. In place of these a gutter splint of perforated zinc suspended by cords may be used. As a rule the flannel bandages are more convenient and facilitate the dressing of the wound. If a fracture is present extension may be applied as shown in the accompanying diagram.



Illustrating the splint for fractures of the upper extremity.

The advantages of the splint are: 1. It is very simple and can easily be made by any carpenter. 2. The patient is made very much more comfortable, as with the arm sling he is able to move his body without interfering with the position of the arm. 3. Extension can be applied very easily. 4. The dressing of the wound is very much simplified and is less painful. This splint is a modification of the "Balkan" splint, which was devised for the treatment of fractures of the lower extremity, and has been used in this hospital with very satisfactory results.

No. 13 General Hospital, British Expeditionary Force.

## THE REMOVAL OF A SEBACEOUS CYST UNDER SUGGESTED ANÆSTHESIA.

BY J. W. ASTLEY COOPER, L.R.C.P. & S. EDIN., L.F.P.S. GLASG.,
RESIDENT PHYSICIAN AT GHYLLWOODS SANATORIUM, CUMBERLAND.

THE patient had at the time of operation been under treatment for chronic alcoholism by hypnotic suggestion for six weeks. Incidentally complaining of a sebaceous cyst of some years' standing in the skin of the chest over the sternum which was slowly getting larger, I proposed its removal during one of his hypnotic sittings. This was agreed to. I hypnotised the patient and suggested total absence of pain during and following the operation. I then dissected out the cyst (about as big as a large filbert). The wall was strongly adherent, and had to be torn away piecemeal at one spot; to ensure its destruction I subsequently swabbed out the cavity with tinctura iodi. The patient gave no indication whatever of any feeling of pain or discomfort, either during this small but painful operation, or during the subsequent healing of the wound, but on being roused expressed surprise that all was finished and that no pain had been felt.

Ghyllwoods Sanatorium, near Cockermouth.

# Medical Societies.

## SOCIETY OF MEDICAL OFFICERS OF HEALTH.

*Criminal Abortion and Abortifacients.*

A MEETING of this society was held on Jan. 8th, Mr. HERBERT JONES, the President, being in the chair.

Dr. W. F. J. WHITLEY read a paper on Criminal Abortion and Abortifacients. He said that criminal abortion was produced or attempted in one of three ways—namely, by means of violent purgation; by the ingestion of drugs having a real or supposed poisonous action upon the fœtus itself or on uterine muscle; and by mechanical interference. The abortion which was unsuccessfully attempted was perhaps more serious and far-reaching in its consequences than that which accomplished its object, for in the latter life was utterly destroyed and in the former it was maimed and disfigured at its very inception, and the infant when born was frequently puny, undeveloped, and devoid of resistive power. There was strong evidence that in this country the commonest way of attempting abortion was by repeated, regular, and systematic purgation. Among the drugs having a real or supposed poisonous action upon the fœtus itself lead in the form of diachylon took a prominent position. It was taken in the north-east of England in combination with aloes. As a result of inquiries made among chemists and chemists' associations it appeared that diachylon was frequently asked for in the north by the lay public without the prescription of a medical man. At least ten local associations of chemists had passed resolutions declining to sell it. Evidence was forthcoming that herbalists sold the drug and did a regular business as abortionists. Among some of the measures which had been suggested for checking criminal abortion were the scheduling of diachylon as a poison and the notification of pregnancy. Educative measures held out most hope of success, and the greater consideration which was now being given to antenatal hygiene was encouraging. A practical measure might be to make all abortions and miscarriages notifiable to the sanitary authority, and to enforce a pathological examination of the fœtus and placenta in every such case.

Dr. W. G. WILLOUGHBY agreed that abortifacients might have a disastrous effect on the health of the child. He feared that the scheduling of a few extra poisons would have little effect in restricting the use of abortifacient drugs. At the root of the whole matter was the fact that a mother was not looked upon with the respect to which she was entitled. People must be impressed with the danger arising from the use of abortifacients, and that if they were used healthy children might not be borne.

Dr. SIDNEY C. LAWRENCE referred to the great difficulty in deciding whether lead or some other drug had been taken prior to an abortion.

Mr. H. H. I. HITCHON said that in the north of England the use of instruments for producing abortion was much commoner than was realised. A first step in stopping the practice was the prohibition of suggestive advertisements which opened the door to criminal practices.

Dr. C. W. HUTT asked what evidence there was that there was any injury to a child born after an unsuccessful attempt to produce abortion. If the statement were incorrect it would do harm.

The PRESIDENT agreed that some steps should be taken to prevent the appearance of the advertisements of abortioners, and pointed out that abortifacients could be procured with the greatest ease from the very herbalists who were receiving payment from the State for treating patients insured under the National Insurance Act.

## EDINBURGH OBSTETRICAL SOCIETY.

*Presidential Address.*

A MEETING of this society was held on Jan. 13th, Sir J. HALLIDAY CROOM, the President, being in the chair.

The following office-bearers were elected for the present session:—President: Sir J. Halliday Croom. Vice-Presidents: Senior, Dr. G. Keppie Paterson; junior, Dr. Angus Macdonald. Secretaries: Mr. E. Scott Carmichael and Dr. R. W. Johnstone. Treasurer: Dr. John M'Gibbon. Librarian: Dr. J. Lamond Lackie. Editor of Transactions: Dr. James Young. Acting Interim: Dr. H. S. Davidson. Members of Council: Dr. J. Haig Ferguson, Dr. D. Berry Hart, Dr. H. S. Davidson, Dr. G. Barbour Simpson, Dr. A. H. F. Barbour, Dr. W. Fordyce, Dr. P. G. Borrowman, and Dr. J. L. Green.

The following were elected Honorary Fellows of the society:—Dr. Cullen, Baltimore, U.S.A.; Emeritus Professor Malins, Birmingham; Professor Briggs, Liverpool; and Professor Jacobs, Brussels.

The PRESIDENT delivered his Presidential Address. After thanking the society for the honour of being elected President for the third time, he proceeded to discuss the problems that were likely to occupy the obstetrician of the future. The first problem was that of the scientific pursuits and achievements of women. He passed in review the work of Madame Curie and Madame Henri, giving a résumé of the position which radium occupied in gynæcology. The declining birth-rate was dealt with, especially the investigations of Dunlop, showing the influence of delay of marriage in the size of the family, especially delay on the part of the woman. Figures were quoted which showed, among other things, that comparing the average Scotch family with the corresponding figures for similar marriages 20 years earlier, the decrease in the size of the family was universal; and that for all ages under 36, age 32 excepted, that decrease amounted to more than one child per marriage. He also dealt with the question of the relations between the working mother and the home, as far as the census figures illustrated them. He showed that the mortality of the children of working married women was 62 per cent. higher than in the cases of mothers who were unemployed. He proceeded to discuss serotherapeutics, with special reference to Abderhalden, and cognate problems were dealt with very fully. He laid special stress upon prematernity beds, pointing out their value both from a scientific and a clinical aspect. In conclusion, he dealt with the teaching of midwifery as it is carried out in the Edinburgh School.

ÆSCULAPIAN SOCIETY.—A meeting of this society was held on Jan. 15th in the Metropolitan Hospital, Dr. David Ross, a past President, being in the chair.—Mr. Henry Curtis conducted a clinical afternoon. In the absence of Dr. E. Cautley Mr. Sylvester showed a boy, aged 14, suffering from Cerebro-spinal Meningitis. On Jan. 6th he vomited and had headache at 3 P.M.; mental confusion and drowsiness. He was admitted on Jan. 7th with headache, groaning, and twitching of hands, chiefly left. He was semi-conscious, both pupils dilated, later on retracted abdomen. Knee-jerk plus; a scabies-like rash. Arms stiff, occasional twitching. Temperature 100° F.; pulse 84; respirations 30. Jan. 8th: Restless night. Anorexia, incontinence; head retracted, tache. Pulse 72; respiration 30 to 36; temperature 100° to 101°. Jan. 12th: More conscious; takes food well; no spots. Injection of 10 c.c. of Merck's serum. Temperature 102° to 103°; pulse 100; respiration 34. Jan. 15th: Melæna with pain over sacrum on two occasions. Temperature 103°; pulse 100; respiration 30.—Dr. A. Feiling mentioned a similar case in which the temperature was 89°, and never rose above 95°. Patient, who was comfortable all the time, died following morning.—Mr. Sylvester showed a man, aged 39, admitted on Dec. 2nd suffering from Hæmatemesis. On Dec. 21st he developed right-sided parotitis. On the 23rd gland subsided, but on the 26th was again swollen. On Jan. 8th pus was seen oozing from Stenson's duct after 1 in 8 acetic acid application to mouth. Jan 15th, gland still very swollen and painful.—In the absence of Dr. W. Langdon Brown Mr. Sylvester showed the man of 38 years with Aplastic Anæmia shown at last meeting (Case 7); the improvement in his condition is apparent rather than real. The quantity of blood is slightly less, which is associated with a higher colour index and more red cells; the white cells show a higher percentage.—Dr. Leonard Williams showed: 1. A soldier, aged 30, with greatly Enlarged Thyroid of ten years' standing; no signs of insufficiency. After four months at the front the pressure of his equipment caused difficulty in breathing and swallowing. He is improving under thyroid extract and potassium iodide. 2. A girl, aged 19, with Graves's Disease, the exophthalmos being of the flight and fright variety. There

was obvious bulging of the sternum due to enlarged thymus. Dr. Williams here discussed the clinical signs of hypertrophy of thymus. He referred to a complete description by Oelnitz,[1] who divides cases into four groups: (1) those with sudden death; (2) latent forms, with sudden symptoms calling for immediate intervention; (3) silent forms, with intermittent and transitory respiratory symptoms; and (4) forms with continuous manifestations with intermittent symptoms. The symptoms are: (1) dyspnœa, generally with cyanosis; (2) often stridor; (3) epistaxis; (4) malnutrition and cachexia. Physical signs are: (1) œdema of eyelids; (2) exophthalmos; (3) increased tension of fontanelles; (4) persistent facial cyanosis; (5) superficial cervical veins dilated; (6) inspiratory contraction of platysma; (7) asymmetrical arching of sterno-costal articulation, more frequent on right side; (8) enlarged thymus can often be felt beneath the sternum; (9) abnormal percussion dulness in thymic region; (10) auscultatory vascular souffle with head over-extended; and (11) radiographic shadow above cardiac shadow. Dr. Williams quoted Sajous to show that the function of the thymus is to supply through its lymphocytes the excess of organically combined phosphorus or nucleins required, especially by osseous and nervous systems during growth. This theory, besides explaining thymic idiocy, thymic marasmus, and thymic dwarfism and rhachitis, explains thymic Graves's disease through the toxæmia induced by excess of nucleins or nucleic acid. In 133 cases of Graves's disease which came to necropsy after operation Matlis found abnormally large thymus in 76·5 per cent. —Dr. Feiling showed: 1. A man, aged 30 years, with very large hands, the feet being normal, teeth regular, and the head flattened and elongated in the antero-posterior diameter. A skiagram showed the pituitary fossa slightly enlarged. There was loss of sensation in the forearms, and heat and cold sensation was lost, much wasting of interossei and thenar muscles, extensor plantar reflexes, and greatly increased knee-jerks. Diagnosis syringomyelia. 2. A man, aged 36 years, suffering from Myopathy of the Facio-scapulo-humeral Form, first noticed 11 years ago. The peculiarity in the case was that although there was a family history it was confined to a paternal grandfather.

[1] Archives des Maladies des Enfants, March, 1911.

# Reviews and Notices of Books.

*A Text-book of Pathology for Students of Medicine.*

By J. GEORGE ADAMI, M.A., M.D., F.R.S., Strathcona Professor of Pathology, McGill University; and JOHN MCCRAE, M.D., M.R.C.P. Lond., Lecturer in Pathology and Clinical Medicine, McGill University, Montreal. Second edition, revised and enlarged. Illustrated with 395 engravings and 13 coloured plates. London: Macmillan and Co., Limited. 1914. Pp. 878. Price 25*s.* net.

THE authors, we think, are amply justified in their contention that the fact that this text-book "has measurably succeeded in its purpose is inferrible from the early exhaustion of the large first edition," which appeared in 1912 and was reviewed in THE LANCET of Feb. 1st, 1913.

The number of pages has been increased from 759 to 878, while 91 engravings and two coloured plates have been added, making the total number of excellently clear engravings 395 and that of coloured plates 13. It seems to us that the whiteness of the paper is more marked, and consequently the printed matter stands out more sharply than in the first edition. Amongst the changes—all improvements—we notice the relegation of the chapter upon monstrosities and abnormalities to an appendix, and a simplification of the classification of tumours. A new chapter on the more important infections and their prominent features has been added. A very useful addition is the syllabus placed at the beginning of each chapter detailing its contents with page references. The volume is completely cross-indexed. Taking the work as a whole, it is evident that while the facts of pathology have not been neglected, continued emphasis has been placed upon the reasons underlying pathological conditions.

Part I. has been very considerably augmented and improved, and certain rearrangements and additions made. The chapter on regressive tissue changes precedes that on progressive tissue changes. In connexion with the subject of immunity and its "stupendous" literature, we think the authors have exercised a wise discretion in giving a workable plan by which immunity can be understood, based largely upon Ehrlich's views. The additions under the head of surgical shock —not forgetting the contributions of Crile—are valuable and practical. As regards the regeneration of bone, we note that the authors are not as yet prepared to accept the views of Macewen ("The Growth of Bone," reviewed in THE LANCET of March 30th, 1912) and others, who deny that the periosteum plays any part in the regeneration or even in the growth of bone. The results of the cultivation of tissues, known as "growth *in vitro*," find a place. Chapter IV. (pp. 186–258), on the more important infections and their outstanding features, successfully attempts to marshal under one head information on an important subject that in the previous edition was widely scattered. The scope of the new chapter will readily be grasped when we cite the subjects with which it deals—viz., diseases due to lower bacteria, bacilli, higher bacteria, filterable viruses, higher fungi, and protozoa, not omitting the group of diseases classed as spirochætoses.

Part II. deals with special and systemic pathology, and occupies about half of the text. It must be difficult even for teachers of experience to decide what to include and what to omit. Marked additions and improvements have been made in all the chapters. Perhaps more illustrations would add value to the chapter on the nervous system. As it stands it is none too long. There are several welcome illustrative reproductions of specimens from McGill Pathological Museum. The short but practical account of the bones is well worth perusal and careful study.

The authors, we think, have succeeded in producing a highly attractive volume, at once practical, philosophic, and suggestive. Further, we are of opinion that they have classified the facts and so correlated them that the reflective student not only will be stimulated to add by his own endeavours to the progress of pathology, but also will find that the acquisition of the facts themselves is rendered easier by the plain, straightforward, consecutive and logical manner in which the authors have presented them. The "get up," apart from the subject matter, is excellent.

*What is Adaptation?*

By R. E. LLOYD, M.B., D.Sc. Lond., Professor of Biology, Medical College, Calcutta. London: Longmans, Green, and Co. 1914. Pp. 110. Price 2*s.* 6*d.* net.

IN the preface to this book we are told that it is "not scientific in the usual sense, being influenced considerably by M. Bergson's philosophy," and we learn further from the book itself that the author's biological creed is ultra-mutationist. As an ardent anti-selectionist Dr. Lloyd questions, perhaps correctly, the intellectual honesty of those Mendelians who profess a lingering belief in natural selection as an instrument of organic

evolution. Having stated in a previous book that "adaptation" (that all-important fact in the view of the selectionist) "needs no explanation," he writes the present one to defend this statement by an endeavour to show how the need for such an explanation has arisen and why it seems unnecessary. The author's position, shortly stated, comes to this: Adaptation is the primary attribute of living things, and therefore, as an unadapted thing could not live, it is its own explanation. But there is a resemblance between organisms and mechanisms in that they both possess the attribute of adaptation; and because man, the chief maker of mechanism, does not regard himself actually as life, but holds himself apart from it; he wonders, makes for himself a problem, and says, "How is it that life can produce the same kind of results that I myself can produce?" And so men, impelled by this wonder alone, proceed to invent theories, one of which is that of natural selection.

It may be held that the author's statement of his position is its own condemnation, so great are his misconceptions of the attitude of science towards the search after causes, and so erroneous are the assumptions involved in his position. But, apart from this, he indulges in much word-play in his desire to show that it is unreasonable to seek for any explanation of "adaptation"; and frequently misrepresents the position of those whom he is opposing. Against the selection theory, for instance, he argues that it is "not science" and should not be taught as such because it cannot be appreciated by all, but only by those "who need a *final* explanation of life." Whether by "final" he means here the *final cause* of life (which words, if correctly used, would stand for the object or purpose for which life came into being) or the *efficient* cause of life and how it arose, his allegation that the selectionist especially must necessarily desire a final explanation of life is hopelessly beside the mark. The scientific man seeks for no final cause, or ultimate explanation of anything; least of all for an ultimate explanation of existence. All ultimate problems are inscrutable and have nothing to do with science. But science can and does seek for answers to questions such as this: By what method has organic evolution been brought about?

It is needless to criticise in detail the chaotic logomachy which marks this book, but its quality may be illustrated by a few excerpts. "The growth of science is different from the growth of man's perceptive ability, which is evolution." "We shall continue to explain life for the very reason that it has no (final) explanation. We shall understand it more and more, simply because we shall never be able to understand it completely." "If the human intellect, which is a part of life, were to understand life, the part would, as it were, grasp the whole, which seems impossible."

The book ends with an advocacy of Bergson's philosophy and of the doctrine of "discontinuity" according to the Mendelians and mutationists. The author, however, says that he has "no wish to urge the reality of discontinuity, but only the practical advantage and necessity of admitting it." In denying that the theory of natural selection is scientific the author revives the old and erroneous charge that the theory is equally teleological with that of special creations. Against all such "teleology" he opposes the theory of "vitalism," from the point of view of which (he says) it is inconceivable that we should know the cause of life and evolution; and thus he makes short work of biological science. It must, however, be borne in mind that, anti-teleologist and anti-mechanist in one as he professes to be, he espouses the mutationist biology and the Bergsonian philosophy—doctrines which have been widely welcomed either by religious persons to whom natural selection is unpalatable, and who see in mutationism an approximate return to the theory of special creation; or by modern mystics of many colours who frame assumptions and style them discoveries.

The whole trend of the author's dialectics establishes his own statement that this book "is not scientific in the usual sense." We venture to add that it is not scientific in any sense.

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*A System of Surgery.*

Edited by C. C. CHOYCE, B.Sc., M.D. Edin., F.R.C.S. Eng., Dean of, and Teacher of Operative Surgery in, the London School of Clinical Medicine (Post-graduate), &c. Pathological Editor, J. MARTIN BEATTIE, M.A., M.D., C.M. Edin., Professor of Bacteriology in the University of Liverpool, and Bacteriologist to the City of Liverpool. In three volumes. Volume III. With 12 coloured plates, 22 black-and-white plates, and 242 illustrations in the text. London, New York, Toronto, and Melbourne: Cassell and Co., Limited. 1914. Pp. 901. Price 21*s.* net.

THE third volume of this System of Surgery maintains the high level of those that have appeared previously. It deals with important subjects. The account of the surgery of the cardio-vascular system, which is by Mr. Rock Carling, is clear, but we think that it would have been well to say a little more about the surgery of the heart. Mr. J. F. Dobson has contributed the description of the surgery of the lymphatic system, and this chapter includes Hodgkin's disease. Mr. Arthur Edmunds is responsible for the section dealing with the surgery of the neck, including the surgery of the thyroid and the thymus glands. He holds the view that the parathyroid glands are not merely undeveloped thyroid tissue, but that they have a separate function, and that their removal leads to the production of tetany.

The chapter on the surgery of the nose and accessory sinuses, by Mr. Harold Barwell, contains a plate which shows well the transillumination of the antrum and the frontal sinuses. Mr. J. Stoddart Barr's article on the surgery of the ear, pharynx, nasopharynx, and larynx is good, and it is elucidated by some useful illustrations of the anatomy of the ear, though they are on rather a small scale. Sir StClair Thomson has described the direct examination of the lower air passages and of the œsophagus. Space does not allow us to notice in detail the different divisions of the work; but we may mention that the chapter on the lungs and pleura is by Mr. H. Morriston Davies; that on injuries and diseases of nerves by Mr. James Sherren; that on the scalp, skull, and brain by Mr. Wilfred Trotter; that on the spine and spinal cord by Mr. Wilfred Trotter and Mr. Gwynne Williams; that on the surgery of the jaw by Mr. D. C. L. Fitzwilliams; that on the skin and subcutaneous tissue by Mr. T. P. Legg; that on the surgery of muscles, fasciæ, and tendons by Mr. Rock Carling; that on bursæ by Mr. E. D. Telford; that on bones and joints by the Editor; that on fractures and separation of epiphyses by Mr. Albert J. Walton; and that on orthopædic surgery by Mr. R. P. Rowlands. The names of the authors are a sufficient indication of the value of the chapters they have written. All can speak with authority.

*L'Infection Puerpérale: Diagnostic; Traitement.*

By Professor CONSTANTIN DANIEL, Bucarest. Paris: A. Maloine. 1914. Pp. 123.

IN this monograph the author demonstrates that the condition known as puerperal septicæmia is in reality surgical septicæmia affecting the puerperal patient, and not in any sense a specific disease, and points out that this conception of the disease was originally put forward by Simpson in 1851. Although it is not possible to deny the occurrence of auto-infection, yet it is certain that in the great majority of the cases the infection comes from without, and its entrance into the body is therefore preventable and should be prevented. The two main forms of localised infection, generally with something retained in the uterus, and generalised infection, are distinguished, and the great importance of a bacteriological examination is in every case insisted upon. Clinically three types may be differentiated: that in which the infection remains local, that in which it becomes secondarily generalised, and a third in which it is an acute general infection from the commencement, a true septicæmia. In considering the treatment of these cases the author recommends first an intra-uterine douche and then curetting. With this advice most English obstetricians would disagree; they would prefer digital exploration first, with the complete evacuation of the uterus if necessary, followed by an intra-uterine douche of some harmless fluid, such as sterile water, and no curetting. The author discusses serotherapy and the various methods of producing leucocytosis, but nothing is said of the treatment by vaccines.

The book forms a clear and interesting résumé of the main facts that are known of puerperal infection, together with some informing statistics.

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*Local Anæsthesia: its Scientific Basis and Practical Use.*

By Professor Dr. HEINRICH BRAUN, of Zwickau. Translated and edited by PERCY SHIELDS, M.D., Cincinnati, Ohio. From the third German revised edition. London: Henry Kimpton. 1914. Pp. 399, with 215 illustrations in black and colour. Price 21*s.* net.

Professor Braun's work upon local anæsthetics is well known in this country, and the latest edition of his book will be a welcome addition to the library for those who make use of the methods with which his name is associated. The book is a very complete exposition of the principles and the practice of local analgesia, is well printed and furnished with remarkably clear diagrams and illustrations. Many of these are photographs taken at operations to illustrate various stages and processes in the performance of infiltration and conduction anæsthesia.

The book begins with a history of the attempts to obtain satisfactory local anæsthesia from very early times up to the introduction of cocaine in 1884. It is from that year that local analgesia begins in any form comparable with that with which we are now familiar. Next comes a comprehensive survey of the work that has been done bearing upon the susceptibility to pain of the various organs and tissues of the body, and a chapter upon the pain-relieving action of nerve compression and anæmia. Here it is made plain that the surgeons of old were right in attributing ligation anæsthesia to pressure on the nerves; the accompanying anæmia is of only secondary importance. In a chapter discussing the effect of osmotic tension of watery solutions the defects of tumefaction anæsthesia, or "anæsthesia dolorosa," are explained, and this method is denounced as practically useless. The different local anæsthetic agents are discussed at length with the various methods of using them, and attention is paid to the symptoms and treatment of cocaine poisoning. Braun endorses the usual opinion that there is no real antidote for cocaine. Stovaine, according to his investigations, causes injury to tissues even in 1 per cent. solution. His final choice of agents is in favour of novocaine and alypine, tropacocaine and stovaine being reserved for spinal analgesia. The two former meet all the requirements which he demands of a local anæsthetic, including compatibility with the use of suprarenin. The influence of the vitality of the tissues upon the local and toxic action of anæsthetic agents is considered in a further chapter, and then the technique of operations upon various parts is gone into in detail and supplemented with excellent illustrations.

The book may be fairly regarded as a complete and masterly account of local analgesia.

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*Urgent Surgery.*

By FÉLIX LEJARS, Professor Agrégé à la Faculté de Médecine de Paris, &c. Translated from the seventh French edition by W. S. DICKIE, F.R.C.S., Surgeon, North Riding Infirmary, Middlesbrough. Third English impression. Vol. I., Introductory, Head, Neck, Chest, Spine, Abdomen. Bristol: John Wright and Sons. 1914. Pp. 614, with 20 plates and 1086 illustrations. Price 25*s.* net.

THE seventh French edition of this well-known work was reviewed in these columns so recently as Sept. 19th, 1914, but this, the second English edition, deserves a fresh set of readers in this country. For their benefit it may be stated anew that the author takes a wide view of the term "emergency"; that he speaks precisely and definitely but not didactically, drawing upon a vast experience, and illustrating his text with brief but lucid case reports.

Injuries of all types naturally figure largely in the chapter headings, which indicate the comprehensive character of the text. Subcutaneous injuries of the chest, for example, take six pages, whilst wounds of the thorax need 40. The section on wounds of the pericardium and heart is well illustrated, and embodies the cream of extensive recent literature in addition to the author's personal experience; even gastrostomy and jejunostomy are included, which as we all know ought not to be, but not infrequently are, surgical emergencies. Additions in this edition deal with acute dilatation of the stomach, acute pancreatitis, obstruction of the mesenteric vessels, sigmoiditis, and perisigmoiditis.

Whilst this book is certainly one to be read by the junior surgeon, to prepare him for prompt action in moments of emergency, and may in ideal conditions be available for reference at such times, it has in addition altogether another value. Most surgeons have very poor records of their most interesting operations, for these are of necessity performed in moments of stress. A volume such as this, read at leisure, will enable the busy surgeon to recall his experiences and to collate them with the author's. Much, indeed, of the text is only to be fully appreciated by those well versed in practice, but to them it offers a means of consolidating knowledge with great gain in precision and utility. In this light the chapters on abdominal surgery may be read with all the absorption of the

"Arabian Nights' Entertainments"; and this leads us to one querulous complaint: the paper is so highly glazed for the sake of the illustrations that in artificial light the letterpress cannot be seen at all at some angles. This, to be sure, is but a trivial fault in a book of solid worth. It is due to the translator to say that his work has been extremely well done; the text reads as if composed in sound English.

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*Précis de Chirurgie de Guerre.*

Par EDMOND DELORME, Médecin Inspecteur-Général de l'Armée. Paris: Masson et Cie. 1914. Pp. 230. Price 4.50 francs.

IMMEDIATELY after the outbreak of hostilities the author delivered an address at the Institute of France on the leading principles of surgical treatment in the field and on removal to hospital. This was received with great applause and has been circulated widely by the War Ministry amongst the medical officers of the army and of the hospitals where military patients are received throughout France. Dr. Delorme, in spite of incessant and laborious military duties during the last three months, has been able to put together in a very handy and compact form all that is necessary for a military surgeon to know in regard to wound treatment. Extreme brevity and clearness of expression, with precise directions as to what must be done and what should not be attempted in the treatment of wounds, are the distinguishing marks of the book. This is just what is wanted by the surgeon on active service. There are a few illustrations. The number of these might have been usefully increased, but the circumstances of the production of the book are probably the reason for the absence of some. A short description is given of the weapons and of the projectiles used in modern warfare, after which wounds are dealt with, first according to the tissues and then according to the regions affected. The author rightly insists that the field dressing must be properly applied by the surgeon or his assistant, not by a soldier or a comrade, "mieux vaut ne pas panser une plaie que de la mal panser," otherwise there is no security against infection. Tincture of iodine (1 in 20) is the disinfectant used. Dr. Delorme especially emphasises the almost uniformly conservative tendency of modern surgery.

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## JOURNALS AND MAGAZINES.

*The American Journal of Tropical Diseases and Preventive Medicine.* Vol. II., No. 6 (December, 1914).—Dr. Isadore Dyer writes on venereal diseases considered as a public responsibility, and points out that although provision is made for such cases in some general hospitals, in most of them these affections are endured and not invited. He thinks that it is not extreme to say that nothing at the present time is more menacing to society than the prevalence of syphilis and gonorrhœa, and no demand is so urgent as that of adequate protection by proper hospital provision. The present method in the United States, as elsewhere, makes the victim of venereal disease secretive and neglectful by surrounding treatment at a public institution with such an atmosphere of incrimination that the patient applies for medical relief only as a last resort. Dr. Dyer therefore pleads for separation of the medical side of the question from the moral and social, and he urges that venereal diseases should have the place in the hospital plan which their importance demands. — An article on Human Filariasis is contributed jointly by Dr. Allen J. Smith and Dr. Damaso Rivas, containing a relation of certain observations carried out by them during the past four years on patients suffering from filariasis in the Laboratory of Comparative Pathology and Tropical Medicine of the University of Pennsylvania. A series of experiments were also carried out with bed bugs to test the suggestion that this insect might act as the intermediate host of the filaria bancrofti. Although microfilariæ were found in the body of the bed bugs after they had been fed on two infected patients (both of them students from Porto Rico), and although the microfilariæ lived in the body of the bed bugs up to the eighth day, no evidence was found of development taking place. It is, moreover, questionable if larval development is possible in the bug. But, nevertheless, the chance of finding filarial embryos in these insects in houses where filarial patients have passed the night is at least of interest, and might perhaps occasionally be of practical importance.—Dr. H. C. Clark, of the Ancon, Canal Zone, Medical Service, gives an analysis, with copious details, of 37 fatal cases in which pellagra had been diagnosed either alone or in association with other diseases. Histological, bacteriological, and inoculation observations offered no data that would help to reveal an etiological factor, or to prove that the disease was a separate entity. There was a striking association of pellagra with such diseases as syphilis, chronic alcoholism, arterio-sclerosis, starvation, chronic pelvic inflammation, and various types of chronic intestinal inflammation, and it would appear possible that this syndrome might frequently be a sequel to the above-named conditions. —News and comments on passing events, along with reviews of current literature, complete the number.

*Eugenics Review*, January, 1915.—In men and in money the present war will exact a toll the effects of which will be felt long after peace has been declared. That racial qualities must be affected is equally certain, and any contribution which may help towards a solution of the many problems which will confront us in regard to the well-being of the race should receive attention. In an article entitled Eugenics and the War, Mr. Theodore G. Chambers discusses from the point of view of the inevitability of war its racial effects. He quotes the opinion of many writers on the subject, and the conclusions are necessarily somewhat indefinite. The Measurement of Intelligence, by Dr. T. Simon, translated from the French by Dr. W. C. Sullivan, is another paper dealing with a subject which is attracting much attention.

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# New Inventions.

## AN IMPROVED PROBE-HOLDER.

WOODEN probes are very useful in nasal and aural work, and especially so when used as wool carriers.

On account of their cheapness the used ones can be discarded after the examination, and burnt when used to mop up discharges; this is a great convenience. This holder, which together with a portion of a probe is shown in the illustration, does away with the disadvantage of the straight wooden probe, the automatic clip can be released, and a new one inserted without soiling the fingers. The instrument has been carefully made for me by Messrs. Mayer and Meltzer, Great Portland-street, London, W.

Shrewsbury. C. G. RUSS WOOD, F.R.C.S.

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THE GALTON LECTURE.—The Galton dinner and lecture, which were instituted last year by the Eugenics Education Society in honour of the memory of Sir Francis Galton, F.R.S., will be held this year, as before, on the anniversary of his birth, Tuesday, Feb. 16th, at the Hotel Cecil, at 7 P.M. Professor J. A. Thomson will deliver the lecture, which will deal with Eugenics and the War.

# THE LANCET.

*LONDON: SATURDAY, JANUARY 23, 1915.*


## The War and Nervous Breakdown.

AN increase in the number of nervous troubles is naturally to be anticipated during the time of war. All forms of nerve instability will certainly receive fresh impetus. Recrudescence of dormant weakness is sure to occur under the additional strain involved in long-continued personal anxiety combined with the weakening influence of fatigue and, perhaps, economy of food. The loss of central control during an engagement has often been depicted in art galleries, and the conception of the artist is abundantly confirmed by the extracts from letters from the front which have been appearing in many of our contemporaries. The overmastering interest of the time of engagement does not persist in normal individuals. With the relief of the immediate strain of conflict the organism speedily regains its normal tone, and though there may be a fleeting return of excitement during the narration of experiences, no harm results so long as the individual is not haunted by the past both day and night. This is, however, only true for the majority of previously healthy young adults who have been in the firing line. Neurologists state that they are being consulted by an increased number on account of many nerve symptoms of an ill-defined character. Some of these cases present symptoms analogous to those of milder forms of epilepsy, and on investigation it may be found that during infancy or adolescence similar symptoms had been present. Far more frequently an accurate diagnosis is not possible, or, at least, a diagnosis which will harmonise with any definite lesion. The condition resembles that which has long been familiar in the law courts in claims after railway accidents, to which it has been convenient to apply the term "shock."

Although many features of the present war will impress future generations with a sense of horror, there are also, happily, many comforting reflections to be derived from observation of our national characteristic trend of thought. It is distinctly cheering to note how eagerly each possible new development is appreciated, as measures are devised for dealing with each contingency on reasonable lines. From the outset of the war it was evident that one problem would be the judicious treatment of nervous symptoms. The early arrivals, who had been through all the weariness of forced marches with insufficient sleep, gave us a warning that could not be disregarded. Lord KNUTSFORD, drawing conclusions from the condition of those reaching the London Hospital, appealed for funds to establish an institution for the treatment of cases of shock. His appeal met with ready response, which has permitted the opening of a special hospital for officers, equipped for the reception of 35 patients. We learn that it is at the instance of the War Office that this undertaking has been restricted to officers, but it would seem possible that ere long something of a similar nature may be required for the treatment of the rank and file. At the moment of writing this question is under discussion by numerous voluntary helpers, and it is uncertain whether their conclusions or recommendations will be of a nature to secure official approval. No doubt steps are being taken to determine whether the generalisations drawn from a limited number of cases in the early days of the war are supported by further observations. It is essential that this question should be decided before it is worth while formulating elaborate schemes likely to entail considerable expenditure. Amongst the soldiers who have been through the harassing time in the trenches there are certainly some whose condition appears to call for the utmost consideration and patience. They are sleepless, or sleep in short snatches disturbed by frequent nightmares. They are dull and depressed, and they are unable to take interest in their surroundings. This dreary picture of apathy is said to be strongly suggestive of the usual premonitory symptoms of chronic mental degeneration, familiar to those who work among the border-line cases, which so often end in melancholia or in delusional forms of insanity. While, however, this is true of some officers, so far, we believe, it has been comparatively rare among the men of the rank and file. The latter, although submitted to the same bewildering tumult of noise and to similar short hours of sleep, do not appear to suffer to the same extent as the officers, who, in addition, have to experience the continual strain of heavy responsibility. All accounts favour the conclusion that among the men it is rare to find that the apathetic condition persists, or that it leads to more permanent mental changes.

It would perhaps be rash to assume that the men possess a greater reserve of recuperative power than their officers, or to infer that their restoration is due to lack of imagination or want of memory, but all observers agree that just as they take their discomforts in the trenches in light-hearted fashion, so they go through hair-breadth escapes with cheery optimism. Even some of those who seemed most depressed on their return to this country speedily recovered tone, after sleeping almost continuously for 48 hours. The point which has to be determined, however, is whether all cases of nervous breakdown will really pursue such a satisfactory course, and what is to be done with those who still show signs of instability long after they have

been removed from the active line. Some such cases are certainly hopeless, but there are others, and happily these are in preponderating numbers, where there are good grounds for believing that they may again become useful citizens. In these more prolonged cases it is in the highest degree improbable that they can ever be employed again on active service. They are so far shaken that they could not be trusted in emergencies. They might be of use in the army in times of peace, but having lost nerve they could never be sent to the front again. While the outlook in these cases is thus limited, it is to be hoped that the authorities will see their way to some form of treatment which will not hamper the future by the infliction of a stigma. Admitting that they bear all the appearances of border-line cases it would be regrettable if they were sent to public institutions as though they had already crossed the border. The difficulty of finding employment for those who have been discharged from the service as unfit is already great. The difficulty should not be increased by adding the stigma of retention in a lunatic asylum unless there have been unmistakable grounds for this course. We mention these things hopefully, for during the administration of Sir ALFRED KEOGH there have been abundant indications that the medical department of the War Office is acting with due consideration for individuals, and for the welfare of the community, as well as for the prosecution of the war to a successful issue.

## Antityphoid Inoculation.

THE agitation which has been engineered in certain quarters against antityphoid inoculation has drawn public attention to a prophylactic measure the utility of which has been proved for all minds capable of appreciating what proof is; but misrepresentations made with sufficient reiteration and vehemence produce upon ignorant people impressions which are hard to remove. Evidence is accumulating in all parts of the world demonstrating the good results which have followed the adoption of inoculation against typhoid fever. The large number of deaths which occurred in the South African War well illustrated the ravages of disease during campaigns where preventive measures were imperfect, but we got little therapeutic instruction from the tragedies which ensued. There were 57,684 cases of typhoid fever, of which 19,454 (33 per cent.) were invalided and 8022 (13·9 per cent.) died. Although inoculation had been introduced at that time the conditions under which the treatment was employed made deduction from the results unsafe. The technique has since been considerably improved, and the experience of other nations has made clear the beneficial effects of preventive inoculation. Sir W. B. LEISHMAN in a letter in THE LANCET of August 22nd, 1914, instanced the fact that about 93 per cent. of the British garrison in India have been protected by inoculation, and the disease which used to cost the nation from 300 to 600 deaths annually was last year responsible for less than 20 deaths. Again inoculation was made compulsory in the American army in 1911, it having practically abolished the disease in American stations; in 1913 there were only three cases of typhoid fever in the entire army, and no deaths. In Japan also encouraging figures have been obtained. In short, all experience goes to prove that inoculation against typhoid fever is a most valuable adjunct to the health of an army. It must not be asserted that it is an infallible protective—that is to say, that a man who has been inoculated is proof against infection. That would be adopting a view which cannot be supported by clinical evidence, and might easily give a false impression to the general public, and so play into the hands of the enemies of research. But inoculation does confer a very considerable degree of immunity against typhoid fever, and the disease in the inoculated person is of a far milder type than in the unprotected. These two things would constitute a sufficient cause to urge the free adoption of the measure. Inoculation, however, does more than this: it greatly decreases the incidence of the malady.

Medicine is regularly attacked by those quite ignorant of medicine. In regard to a knowledge of (say) physics, law, or military tactics, the public at large, as a rule, pay deference to those who have made a life-long study of a particular profession, but towards medicine the public to some extent adopts a different attitude, and upon occasion there is a reasonable basis in this attitude, for a man has naturally a feeling towards his body that he has not towards his possessions or his civic privileges. Well aware of this feeling, agitators have shown their hatred of scientific medicine in a manner difficult to combat, but very likely to obtain recruits from the ignorant, the timid, and the sentimental. Physicians and surgeons who have devoted themselves to a study of disease, its cause and prevention, are quite used to being contradicted by these sort of people, and as a rule only resent the treatment when the general health of the community is in question. Consequently faddists are listened to and believed who have had no opportunities of studying the intricate problems of morbid processes, and their opinions are quoted seriously against those of members of the medical profession who have devoted long years to special work. At the present time a course is being pursued in connexion with inoculation against typhoid fever which well illustrates the danger of allowing unlimited license to antiscientific agitators. A quantity of "literature" is being widely disseminated, containing garbled statements and misrepresentations which can only have an unhappy influence upon a large number of those who read them. The pamphlets or circulars are couched in terms of patriotism; and came to us in one case accompanied by a little publication, humorously quoting Dr. JOHNSON as saying that "patriotism is the last

refuge of a scoundrel." The argument which the agitators employ is that the idea of inoculation is a bar to recruiting. Of course, the idea only becomes a bar to recruiting among those who have been filled full with falsehood. The man who wishes to serve his country, for the sake of himself and his comrades should be willing to undergo discomfort rather than risk the introduction among the troops of the ravages of a disease which in the past has caused so many deaths. For if a man contracts typhoid fever he is a danger not only to himself but to those who are associated with him. Some inconvenience for a day or two is nothing as compared with an attack of typhoid fever; to undergo an infinitesimal—nay, a negligible—risk in order to help in the maintenance of a healthy army is what is required of the recruit, but this is not the way in which the situation is described by the authors of these circulars, who are thrusting on the public their ill-informed pathology by advertisement also. No words are too strong in condemnation of those who under the guise of patriotism are seeking to force their own fads, founded upon ignorance, upon our prospective troops to the detriment of the future of the nation.

It is evident that the dissemination of these circulars in a broadcast way may prove a distinct danger to the State, and the danger is exaggerated when advertisements in support of the attack upon recruiting are accepted by a national institution like *Punch*. Authority has been given to the Press Bureau to prevent anything being published that will act in a detrimental manner to the course of the war. The action of ignorant fanatics in attempting to influence our recruiting, and to persuade those in our army to refuse to follow a preventive treatment which the highest medical authorities recommend, is surely detrimental to the cause of the Allies, and we strongly urge the authorities to take all the necessary steps to prevent the publication of pamphlets and advertisements spreading misleading statements on such an important matter as inoculation against typhoid fever. The misuse of the term "paratyphoid" in the advertisement which appeared on Jan. 13th last in *Punch* (and whose insertion our contemporary has now stated to be due to accident) in itself shows the want of knowledge on the part of the persons who are responsible for public statements that the recruits are being treated with "tyranny" and "ingratitude," and that inoculation has been proved to be "an utterly useless and dangerous practice."

The recent letters to the *Times* of Sir WILLIAM OSLER and Sir LAUDER BRUNTON form a praiseworthy summary of the situation, and the former's appeal to soldiers in two final questions should have as wide a circulation as possible. The questions are :—

1. Will you believe the statements of misguided cranks who are playing into the enemy's hands by purveying their misleading literature, or will you hearken to men who have devoted their lives to the service of humanity, and who have no wish in the matter other than your good?

2. Against a transient indisposition will you put in the balance the chance of a protracted and costly illness, possibly an untimely death?

As soon as possible the publication of the statistics of the results so far observed as regards the value of inoculation during the present war should be published. No official pronouncement has as yet been made, but it is significant that the French military authorities are stated to be so satisfied with the value of inoculation that army surgeons are sent to the front to vaccinate a whole army corps in the firing line. It is further stated that arrangements are being made to inoculate every soldier whether at the front or at the depôts in the interior of the country. Whether compulsory inoculation should be introduced into our forces is a question which has no doubt been seriously considered by those responsible for the health of our armies, and doubtless if they decide to introduce such a measure they will be entirely uninfluenced by idle chattering.

# Annotations.

"Ne quid nimis."

## THE AIR RAID.

ON Tuesday evening last an air raid took place over the east coast of England, when bombs were dropped into Great Yarmouth, Sherringham, and King's Lynn, confirming the probability of such attacks upon unfortified places. So far it is only coast towns that have suffered, whether from raids by sea or air, but while, of course, only such towns can be subjected to shell-fire from sea, inland communities, if fortune fights on the side of the attack, can be harassed by missiles from the air. It would be childish to point this out were it not that some among us appear to forget it, and their behaviour is as troublesome as that of those who can think of nothing else. The raid on the Norfolk coast is a complete answer to those who have grumbled without cease at the atmosphere of depression created by placing London for so long a period in gloom—a gloom which has been accentuated to the point of darkness recently, as information concerning the German intentions grew more complete. Those communities which by their geography or their importance invite the attention of the enemy must be prepared for attacks by air, and if we can all imitate the brave calm of Norfolk under trial the attacks will fail in their principal object, whatever miserable toll of life they may exact. We do not minimise the anxieties, and in a few sad cases the anguish, caused by air raids on our coast when we say that no serious damage can be done by them to the general military situation. But in densely populated settlements, of which London is the greatest example in the world, the loss of life following such attacks might be terrible. We would urge the citizens of great cities at the first warning of the approach of danger to obey such authoritative advice as they have as yet received—advice which calls attention to the danger from fragments of the shells and bullets fired by our guns used against hostile aircraft.

The streets should be avoided by the populace when it is known that an air raid is imminent, as being the really dangerous place. There is nearly as much chance of a bomb dropping in a street as on a building, while the streets will necessarily be exposed to the missiles of the defending guns. In the metropolis and in some other large towns medical precautions have been taken in case of air raids, and the necessity of the general population taking cover is always assumed in these arrangements. In London plans have been made with the full approval of the police for the immediate dispatch of surgeons to the spot in the event of any terrible emergency, and, moreover, a scheme has been carefully thought out whereby first aid will be rendered in harmony with the police to any sufferers from an air raid, all local men assisting in rendering the necessary help before the wounded are removed to hospitals or other institutions. We hope that other great cities have organised some plan for making use of their medical inhabitants. This should be done at once, for there will be no certainty, and generally no possibility, of summoning medical aid to a given spot after the tragedy has occurred, when there will be few lights, consequent difficulties of transport, and perhaps disorganisation of telephone and telegraph.

## THE SCHEDULE OF POISONS.

THE law relating to the sale of poisons is continually a source of disquiet to the public conscience. Upon the occurrence of a fatality due to a poison, whether the result of accident or design, in all probability the scope of inquiry will include considerations of purchase. Coroners' juries seem never to weary of calling the attention of the proper authorities to the need of imposing additional restrictions on the sale of poisons. It is not always clearly understood who these authorities may be or what difficulties may stand in the way. It is felt that the safeguards provided by law are defective, and it is more judicious to kick the law, an impersonal, nonsentient organism, than to pass a resolution of censure upon some unfortunate wight who has been outwitted. As the law stands poisons are divided into two groups, Part 1 and Part 2 of the schedule, and the restrictions imposed in the case of any particular drug or poisons depend upon the place assigned to it in the schedule. The obstacles in the way of sale to the public are greatest with regard to all poisons included in Part 1 of the schedule. Frequently complaint is made that these regulations are unduly troublesome to the vendor, and protests are raised when any additions are made to the list, even though the need of such additions has been emphasised by repeated misadventures, as was notable in connexion with veronal and hypnotics of allied chemical composition. It is generally assumed, when there has been delay in the inclusion of new poisons in the schedule, that the fault lies in the intricacy of the steps by which the change is to be effected. This is not strictly true, though the recommendations have to receive the approval of certain public officers after they have been transmitted from the Pharmaceutical Society. To judge from recent pronouncements it would seem that the reasons for delay are more intimately connected with an amiable desire to meet the demand for the articles. We have noted that the alteration in the strength of the official tincture of opium has had the effect of bringing it automatically within the scope of Part 1 of the schedule, which includes opium and all preparations or admixtures containing 1 or more per cent. of morphine. While no objection has been taken to the alteration in strength, there has been an outcry against the retention of the synonym "laudanum," since it appears that under this name the drug has hitherto been freely sold in small or large quantities. The matter has been deemed of sufficient importance for the Pharmaceutical Society to seek the advice of its Law Committee and it has received and adopted the following report:—

> That the policy to be advocated by the Council in regard to the sale of laudanum should be that when "laudanum" is asked for the 1914 preparation should be supplied and the poison book signed; but where the 1898 preparation is demanded care should be taken to label accordingly, and the attention of the purchaser should be called to the fact that it is the 1898 preparation.

It would be interesting to know how often we are likely to meet with a member of the public who has any notion of the difference. Probably the majority will ask for what they have been in the habit of using, and if tinctures of both strengths are kept, the one will be reserved for the emissary from the local inspector, the other, with a few words of explanation, will be supplied to the public as before. There is always danger in keeping preparations of different strengths with similar names, and it is to be hoped that this suggested system of meeting the demand for the sale of a remedy which may become a poison if improperly employed will speedily be rescinded. Meanwhile it is curious to note that in Ireland opium and all preparations of opium or of poppies appear in Part 2 of the schedule, which means that though they require a label stating the name of the article, the word "poison," and the name and address of the seller, it is not necessary in Ireland to make any entry in the poison book of the date of the sale, the name and address of the purchaser, the name and quantity of the article sold, and the purpose for which it is stated by the purchaser to be required. Comparison of the schedules of Great Britain with those of Ireland reveals several other inconsistencies and affords strong reasons for suggesting that the two should be brought into harmony whenever it is possible to devote attention to the subject.

## REMOVAL OF A BULLET FROM THE ATLAS.

IN the *Boston Medical and Surgical Journal* of Nov. 26th, 1914, Dr. F. H. Lahey has reported a case in which he performed the unusual operation of removing a bullet from the atlas. The patient was a boy, aged 8 years, who, while sleeping, was shot by a demented parent. The bullet entered the left side of the upper jaw just above the second incisor tooth, penetrated the hard palate near its junction with the soft, and entered the posterior pharyngeal wall. The X rays showed the bullet lying inside the posterior arch of the atlas on the left side, just behind the groove for the vertebral artery. On the next day the boy was taken to hospital. An immediate operation was not performed on account of sloughing of the wound of the palate and because the bullet was causing no symptoms. After three days, when much of the slough had separated, a curved incision was made from below the external occipital protuberance to the mastoid process. The incision was deepened through the cervical muscles, as in performing suboccipital decompression, until the posterior arch of

the atlas was reached. The incision was then carried through the left lateral occipito-atlantal ligament until a small blackened area was found surrounding the bullet. Removal was difficult until a good grasp of the bullet was obtained with toothed clamps, because the bullet was wedged beneath the arch of the atlas and there were a few sharp projections on it which were produced in its transit through bone. A rubber drain was inserted and the muscles were sutured with chromic gut and the skin with silkworm gut. Recovery from the operation was uneventful. The child was kept flat on his back and not allowed to move his neck for two weeks. When he was discharged on the twentieth day the wound was solidly healed, but there was considerable stiffness of the neck, particularly for backward movements of the head and rotation from left to right. A month later movement was freer, but was still limited in the directions mentioned. An interesting point is that the bullet entered the spinal canal in front between the base of the skull and the atlas, and was extracted from the canal in the rear, and yet the cord apparently was uninjured.

## A NEW METHOD OF STERILISATION.

Dr. Guido Cremonese, in a recent issue of the *Gazzetta degli Ospedali*, draws attention to the value of iodobenzine as a disinfectant. It is prepared by pouring some tincture of iodine into a certain quantity of benzine; the excess of tincture of iodine sinks to the bottom and a saturated solution of iodobenzine is formed. Gratifying results are claimed for its use, first for sterilising the hands, it being sufficient to rub in a small quantity; secondly, as a ready method of preparing dressings by soaking them in the solution which is then allowed to evaporate; and thirdly, for sterilising wounds by the application of tampons medicated in this manner. The author states that with the antiseptics in common use some time is required to render a septic locality sterile. Iodobenzine, on the contrary, has a rapid and immediate action by means of irradiation of nascent iodine vapour by the rapid evaporation of iodine and benzine. The antiseptic action is therefore developed at once, while after a few minutes a simple sterile dressing remains in contact with the wound.

## THE CHEMISTRY OF RICE POLISHINGS.

THE curative substance of rice polishings is still resisting analytical attempts to isolate a definitive principle. Some recent work by J. C. Drummond and Casimir Funk upon this subject is recorded in an interesting paper published in the December number of the *Bio-chemical Journal*. These workers carried out an exhaustive fractionation of the phosphotungstic acid precipitate from an alcoholic extract of rice polishings. They confirm the presence of considerable amounts of choline and nicotinic acid in the polishings, and betaine, adenine, guanine, and possibly guanidine were detected. Small amounts of other substances were isolated, but in quantities insufficient for identification. The work of the Japanese authors, Suzuki, Shimamura, and Odake, who claimed to have isolated the curative substance in the form of its picrate, was repeated, but the results did not lead to any confirmation of the work of these investigators. While Drummond and Funk failed themselves to isolate the curative substance which occurs in rice polishings, they are inclined to think that it is decomposed during the fractionation process, when all trace of it is lost. From this it would appear that the so-called vitamine is a readily decomposed base, and it would be interesting to discover what happens to its nitrogen in the processes of nutrition. Usually inert, nitrogen may in a nascent state prove to be an activator.

## DEATH AND THE ADRENAL GLANDS.

IT is probably a unique observation in morbid pathology that there exists one particular organ, the adrenal gland, careful examination of which can indicate with tolerable certainty the manner or mode of death. With the particular disease responsible for the *exitus* the condition of the gland may have less immediate concern. To explain the relation of this gland the following facts may be noted. Of the two parts of the gland the cortical, constituting 80 to 90 per cent. bulk of the organ, stores a lipoid material; the medullary portion secretes adrenalin. It is with this latter function that we are immediately concerned. An intimate physiological relationship exists between the nervous sympathetic system and the adrenalin gland content which controls the vascular tension. An effective supply of adrenalin ensures an efficient circulatory and general tone; diminution leads to fall of blood pressure and asthenia. The estimation of the gland adrenalin content after death shows important changes, and it is these which indicate something of the conditions preceding death. Dr. T. R. Elliott[1] has examined the glands from the point of view of adrenalin content in 80 cases (the lipoid was estimated in 170 cases). The first fact brought out was that no relationship could be established between the particular disease and the adrenalin content, nor was there any definite relationship between cortex and medulla. But an important difference in content was noted when the mode of death was inquired into. Sudden death, due to whatever cause, showed a practically normal adrenalin content; where, however, general distress preceded death, a marked loss of secretion in the gland was noted. For instance, the gland content in a case of sudden death was 4·5 mg. (a normal figure); in a heart case with slow failure and apathetic death 2·3 mg.; in another heart case with acute failure and mental distress, 0·2 to 0·7. Prolonged anæsthesia may induce similar changes—e.g., long anæsthesia, 2 to 3·0 mg. That adrenalin exhaustion follows strains imposed upon the nervous system has been abundantly shown in experiments, and that the gland is "emptied" as it were of adrenalin by splanchnic nervous channels has been shown in cats, where, on splanchnic supply being cut off, the gland it supplies is not affected under exhausting general conditions which "empty" the opposite normally innervated gland. The adrenal glands are played upon by emotional and vasomotor reflexes as frequently as are the muscles of the blood-vessels themselves. In such a crisis as impending death from diphtheria intoxication, for instance, there is an urgent demand by the individual to combat the fall of blood pressure and other changes elsewhere. To maintain the vascular tone the adrenalin is called upon, and we find as a result

[1] Quarterly Journal of Medicine, Oxford, 1914, vol. viii., p. 47.

lessened quantity under such conditions. The different effect that mode of death exerts upon the adrenalin where the essential cause, cerebral hæmorrhage, was the same, was strikingly seen in two cases. In one case death followed 11 hours after a severe and extensive positive hæmorrhage; adrenalin content much diminished, 1·2 mg. Evidence here shows drain on glands due to vasomotor medullary action being induced by the sudden rise of blood pressure demanding slower pulse-rate. In a second case, however, where pachymeningitis hæmorrhagica occurred with two days' coma preceding death, the adrenalin content was 3·0 mg. Here the coma deleted any distressing conditions liable to induce gland exhaustion. Many facts in this valuable paper throw light also upon cortical function; theories are critically examined, and an account of the technique for reliable gland examination mentioned. We have here noted only one, but an interesting part of this subject.

## POST-LITIGATION RESULTS IN THE TRAUMATIC NEUROSES.

AT last year's annual meeting of the American Neurological Association[1] held at Albany, New York, a profitable discussion on post-litigation results in cases of traumatic hysteria and traumatic neurasthenia was initiated by Dr. F. X. Dercum (Philadelphia) who based his paper on some 605 traumatic litigation cases personally examined and recorded for prosecution or defence. In 126 of these the injuries were physical. In the others, constituting much the larger proportion, the symptoms were those of so-called traumatic neurosis, and in many instances Dr. Dercum considered them unreal and unessential. He took the view that hysteria, for instance, was an innate affection pre-existing in the individual suffering from trauma, and his experience was that in such cases the symptoms always persisted until the final settlement of the action; then they subsided and disappeared. He gave brief reports of some 20 cases carried into the court room on stretchers or chairs, or "too seriously injured to be brought into court"; in all of these the symptoms rapidly vanished after settlement. Dr. Dercum said the whole subject was of paramount importance to the community, as on it the eventual cost falls. He gave it as his opinion that the law should ensure compensation for physical injuries only. In the State of Pennsylvania damages for fright were no longer allowed, and he thought that compensation for traumatic hysteria should also, and logically, be excluded. Dr. Hugh Patrick (Chicago) said he considered that the employers' liability laws were adding to the invalid list enormously, continuously, and increasingly. He referred to the state of affairs in Germany and Austria, where, as is well known to neurologists, the burden of the disabled and quasi-disabled weighs ever more heavily on the nation. In fact, a new neurosis, distinguished as a "fight-for-compensation neurosis," has been described by German writers. Dr. Adolf Meyer (Baltimore) pointed out the essential unfairness of restricting compensation to cases of physical injury only. Serious shock was surely physical in quality. If too hard and fast a line were drawn, there would be a reaction on the part of the legislature, and what he called "emotional jury verdicts" would result. He entered a plea for the elimination of protracted litigation, and urged the necessity of all expert professional reports being committed to writing, so that certain types of so-called experts could be pilloried and eliminated. Subsequent speakers also considered that Dr. Dercum's position was too extreme, and quoted cases where recovery had not followed settlement. Dr. Pearce Bailey (New York) said that it was urgently desirable to interview the injured immediately after the accident; if no period elapses for the "working up of revengeful feeling" the traumatic neurosis will rarely develop. Dr. Diller's attitude was on the whole one which we think will commend itself to the physician. He alluded to the handicap felt by the physician in treating such patients pending litigation, and gave it as his experience that a gradual improvement takes place after the award of damages, an improvement much more marked than before settlement. He held that if an individual in good health is injured in an accident and thereafter suffers from neurasthenic or hysterical symptoms these should be fairly attributed to the accident; they are real and not imaginary, though they might be exaggerated. Exaggeration is a common tendency in all kinds of sickness. While it is perfectly true that many of the traumatic neuroses would never have occurred had the individual not possessed a neurotic temperament, on the other hand such an individual might have gone on through life without showing marked nervous symptoms had it not been for the accident. Apparently little reference was made in the discussion to the great practical importance of the manner in which the claim is settled. Large statistics from railway compensation cases in Germany[2] have shown conclusively that the results are much better when compensation is paid in a round sum than when it is awarded to be paid weekly for an indefinite period. Wherever practicable the medical profession should take up a strong position on this point. It is apparent, we think, that the matter is too complex to be settled offhand by any radical declaration. Neither the employer nor the employee is responsible for the neurotic temperament of the latter, and were the sufferer from traumatic neurosis to be considered devoid of all claim for compensation it would look, as one of the American speakers said, as though he were being penalised for his own nervous instability. The subject is of everyday importance, and it might be well on some future occasion to obtain a consensus of opinion from the experts of the profession in this country from which to derive some general rules for the guidance of those who are medically concerned with such cases.

[1] Journal of Nervous and Mental Disease, December, 1914, p. 785.

## MYIASIS OF THE URINARY PASSAGES.

MYIASIS of the urinary passages is a very rare condition. In 1909 René Chevrel analysed all the reported cases, of which he could find only 20. He regarded 6 as authentic, 10 as probable, and 4 as doubtful, and he added a case under his own observation. In the *Journal of the American Medical Association* of Dec. 26th, 1914, Dr. E. F. King has reported the following case. A man, aged 32 years, who had been suffering from chronic posterior urethritis for some months, on Oct. 29th, 1914, brought an object which he said he had passed in the urine. This was later identified by Dr. L. O. Howard, entomologist of the United States Department of Agriculture, as the larva

[2] THE LANCET, Oct. 4th, 1913, p. 1005.

of the Fannia scalaris. The patient had voided similar objects on Oct. 19th and 28th, but had not brought them, fearing he would be laughed at. He lived on a farm and was in the habit of micturating into a glass which he kept in a shed turned upside down and which he always rinsed after using. He used a syringe of hard rubber for urethral injections. This he kept wrapped in paper in a closed drawer. Apparently, therefore, the larvæ could not have been derived from the glass or the syringe. About 8 o'clock in the morning while digging he was seized with an intense desire to micturate, he hurried to the shed, felt something pass with the urine, and found the larva in the glass. He did not see it move. When Dr. King received it two hours later it was in a perfectly fresh condition. The patient could not find any larvæ in the fæces after a diligent search. Dr. King thinks that the urethra was probably infected while the patient was at stool, flies being attracted by the urethral discharge. In Chevrel's case the patient was a paralytic woman, aged 55 years, who was left alone all day on a chair which had been converted into a commode, the receptacle for the dejecta being placed on the floor. Flies were able to swarm freely about the buttocks. For about two months she daily passed larvæ with the urine. Chevrel thinks that while dipterous ova may be carried into the urinary passages by sounds or catheters or in water used for irrigating, they generally are deposited about the meatus urinarius, where are found the conditions favouring their growth—namely, darkness, moisture, warmth, oxygen, and food, the last being furnished by a gonorrhœal or other discharge. The eggs hatch promptly, and the young larvæ pass into the urethra and bladder in search of food. They require but little oxygen, for Chevrel kept them under water for hours and found them still active when taken out. Infection is favoured by sleeping in hot weather with the genital region uncovered.

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Brevet-Colonel William Heaton Horrocks, R.A.M.C., has been appointed Honorary Surgeon to the King, in the place of the late Surgeon-Major-General Sir John By Cole Reade, K.C.B.

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THE second volume of the annual report of the London County Council for the year 1913 has just been issued and comprises the report of the Asylums Committee for the year 1913–14.

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Dr. Llewellyn P. Phillips, professor of medicine at the Cairo Medical School, has been appointed Physician in Ordinary to S.M. the Sultan of Egypt.

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THE Executive Committee have appointed Dr. J. A. Murray to be Acting Director of the Imperial Cancer Research Fund.

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DEATH OF A VETERAN SCOTTISH PRACTITIONER.—The death of Dr. Robert Leys took place at his residence, Ellon, on Jan. 13th. Dr. Leys commenced practice in Ellon as far back as the year 1853, and was for many years one of the best-known practitioners in the district. He was for several years a member of the Ellon town council and a justice of the peace. Dr. Leys studied medicine at King's College, Aberdeen, and graduated M.D. there in 1857. He was held in high esteem in the district, but for the last 17 years had been living in retirement, having attained an advanced age.

## THE CHADWICK LECTURES ON WAR AND DISEASE.

THE first of a series of three Chadwick lectures on War and Disease was delivered in the lecture hall of the Royal Society of Arts on Jan. 15th by Colonel F. M. SANDWITH, M.D. The chair was occupied by Sir WILLIAM COLLINS, K.C.V.O., the chairman of the Chadwick Trust.

Sir WILLIAM COLLINS said the trustees had been so encouraged by the new departure made two years ago in giving these public lectures that it was proposed to continue in the same lines. Under authority conferred by the Trust a prize of £50 and the Chadwick gold medal was offered to the medical officer of the navy and to the medical officer of the army who most distinguished themselves in promoting the health of the sailors and soldiers. The Directors-General of the Navy and of the Army Medical Departments had given their cordial approval and support, and nominations had been received by the trustees. It was hoped that the awards would shortly be announced. The period which Dr. Sandwith would deal with in this lecture was the century of Chadwick, for he was born in 1800 and died in 1890. It was also the century of Florence Nightingale, who died in 1910. That lady was a great friend of Chadwick and the two were closely associated in military and sanitary reform. It was Chadwick who introduced Miss Nightingale to John Stuart Mill and to Kinglake. The work of Florence Nightingale in connexion with the military aspect of sanitary reform was beyond all praise, and she showed how informed gentleness and humane efficiency could produce results which previously had been unthought of. Yet when attacking incompetence and inefficiency in high places she could be very caustic.

Dr. SANDWITH devoted this lecture to a consideration of continental wars of the nineteenth century. He said there was a general conviction that the success in this present great struggle must lie with those whose spirit endured, whose faith in themselves and their cause never wavered, and that the destiny of nations lay in the spirit and moral of the troops. But the medical officer realised that the sternest determination and the most inflexible courage were, to a considerable extent, dependent upon physical conditions. Pain, hunger, cold, and sickness lowered the vitality and tended to reduce physical and moral endurance, and these complications might do more mischief than the enemy's bullets. But our army was now better fitted, equipped, and instructed for a prolonged struggle than in any previous campaign. In only one previous instance had sanitary science fitted the soldier for his task—namely, in the Russo-Japanese War of 1904–5. In recent wars fought on land, of each 100 deaths 20 were from wounds, 80 from disease; the Russo-Turkish war of 1877–8 showed this proportion. In the American Civil War there were 3 deaths from disease to 1 from wounds. In the French expedition to Madagascar in 1895 there were 29 killed in action, while 7000 died from disease. In the United States army during the Spanish-American War 14 died from disease to every 1 killed in action. The British losses from disease in the South African War were terrible. On the outbreak of hostilities with Russia the Japanese were prepared for all eventualities, and by attention to the smallest details they were able to show a proportion of 1 dead from disease to 4 dead from wounds. Their aim had been to adapt the best hygienic principles to the life of the soldier in times of peace as well as in those of war. Hygiene was but little considered until the public awoke to the necessity of enacting certain laws for the preservation of health in the great cities. The outbreak of epidemics in these cities frightened local authorities into inquiries as to their cause, and led to the appointment of the first Sanitary Commission, of which Chadwick was a distinguished member; and though he retired from official life in 1854 his hygienic zeal never abated, and when at this time the Crimean War was in full swing he inquired into the sanitary conditions of our army, for it was suffering from extreme, and to some extent preventable, privations in the Crimea. The British public were aroused to a realisation of these by the letters of William Howard Russell, the great war correspondent, to the *Times*. Even in the time of Napoleon's wars the care of the

sick and wounded was lamentably neglected, although there were some distinguished surgeons on his staff. In 1854 the Army Medical Department consisted of the Director-General, an assistant, and about six clerks. The head of the department struggled in vain, on the outbreak of the war, to create every detail of supply, but on grossly insufficient funds, and he had no trained staff. It was small wonder that many diseases decimated the fighting line. In January, 1855, there were 23,076 sick in the ranks. At this time Sidney Herbert was appointed Secretary of War. He was a man of fearless and independent character, and with the coöperation of Florence Nightingale he got a staff of nurses at the front, and drastic reforms were introduced in the spring of 1855; a Commission was sent from home, and they caused important sanitary works to be carried on, including the construction of hospitals and the improvement of the water-supply. The death-rate, which in February, 1855, had reached 42 per cent., began to fall, and in June it was only just over 2 per cent. A Royal Commission appointed in 1857 to inquire into the medical administration of the army revealed that not only was the mortality due to disease in war time enormous, but that of the army in peace time was double that among the civilian population. The high figures in barracks were due to their grossly insanitary condition. In the sleeping arrangements only 23 inches of space per man was allowed and the beds were practically touching each other. Sometimes four men slept in each bed. In spite of many representations, comparatively little change occurred until the Crimean War had drawn public attention to the facts. Next, the health of our troops in India received attention. Florence Nightingale stated that 60 per 1000 of our troops perished annually in India, and preventable disease among them cost the nation £388,000 in a year. It was thought that the high mortality there was inevitable and was due to climatic conditions, and it was the custom to bleed men on the voyage out, under the idea that "blood freshly made would be of a quality germane to the new climate." In 1860 the first army medical school was founded at Chatham to meet this increasing experience. It was subsequently removed to Netley. Its first professor was Dr. Edwin Parkes, who had written brilliant monographs on dysentery and cholera in India, and whose "Manual of Practical Hygiene" long remained the standard work on the subject. Parkes was continually endeavouring to improve the physique and conditions of the soldiers, for at the date he wrote officers and men were clothed in a manner which was calculated to hinder the free movements of the body. It was a wonder that such long marches as stood to the credit of some regiments—i.e., 42 miles in 20 hours and 62 miles in 26 hours—could be carried out, especially as the soldier had to carry equipment weighing 55 lb. Fifty years ago, moreover, the British Army was said to be the most intemperate in Europe. The men had a regular ration of rum served out to them, and in the West Indies men had cheap rum in abundance, and it was often contaminated with lead. This did not allay thirst but aggravated it. In 1864 Sir Hugh Rose reduced the spirit ration to one-half. In the American Civil War men who could not be paid owing to lack of funds, so that they could not buy spirits, were healthier and more cheerful than those who bought alcohol. Intemperance in our army had now largely disappeared, and Dr. Sandwith commended the wisdom of the Czar in prohibiting the sale of vodka throughout his dominions during this crisis, and expressed the wish that the magistrates of our great cities might be given greater powers in that direction. Alcohol administered in small quantities after a fatiguing march acted as an appetiser when men did not feel inclined for food, and abstainers under normal circumstances were glad of this aid. Alcoholic excess was partly responsible for the devilish performances of German officers and soldiers with unprotected women. He concluded by paying a high tribute to the organisers in the present war.

## ROYAL COLLEGE OF SURGEONS OF ENGLAND.

### MEETING OF COUNCIL.

A QUARTERLY meeting of the Council was held Jan. 14th, Sir W. WATSON CHEYNE, the President, being in the chair.

The Secretary reported the death on Dec. 31st last of Mr. Thomas Bryant, past President, and past member of the Council and of the Court of Examiners of the College. A vote of condolence was passed expressing the appreciation of the Council of Mr. Bryant as President and in other capacities.

Leave of absence was given to the Conservator of the Museum for the purpose of going to America to deliver a course of five lectures on anthropology at the Western Reserve University, Cleveland, Ohio.

A vote of thanks was given to Mr. G. Buckston Browne for a collection of lithotrites presented by him to the Museum, and a vote of thanks was given to Sir John Tweedy for his interesting and valuable gifts to the library.

It was resolved to contribute a sum of 50 guineas from the funds of the College to the Belgian Doctors' and Pharmacists' Relief Fund.

Sir W. WATSON CHEYNE was reappointed a member of the Court of Governors of the University of Birmingham for three years.

The PRESIDENT reported the delivery by Sir Frederic Eve on Dec. 15th of the Bradshaw Lecture on Acute Hæmorrhagic Pancreatitis, with Remarks on the Etiology of Chronic Pancreatitis. The best thanks of the Council were given to Sir Frederic Eve for his lecture, and he was requested to publish it.

The PRESIDENT stated that the vacancy on the Court of Examiners occasioned by the termination of office by Mr. Bilton Pollard would be filled at the ordinary meeting of the Council on Feb. 11th.

## REPORTS OF THE YELLOW FEVER COMMISSION (WEST AFRICA).

THIS Yellow Fever Commission, as our readers may remember, was appointed in January, 1913, by the Secretary of State for the Colonies, with the object of studying the nature and frequency of the fevers occurring among Europeans, natives, and others in West Africa, especially with regard to yellow fever.[1] The members of the Commission are four in number—namely, Sir James Kingston Fowler, Colonel Sir William B. Leishman, Sir Ronald Ross, and Professor W. J. R. Simpson. They have now issued two reports giving a general account of the steps taken to acquire information and the results so far obtained.

### *First Report.*

The first report, dated Oct. 7th, 1913, is signed by the three first of the above-named members of the Commission, Professor Simpson having been absent in East Africa advising the authorities there on health matters. A brief review is given of the circumstances which led up to the appointment of the Commission and the measures taken to organise and prosecute the investigation. Copies of the forms drawn up and sent out to the West African Medical Staff and to other medical practitioners in the various colonies are appended. In these information was asked for and coöperation in the inquiry invited. Several officers possessing special training and qualifications were appointed to carry out work for the Commission at different centres in West Africa, and one member of the West African Medical Staff, Mr. J. M. O'Brien, on his own initiative, in order to increase his knowledge and experience of the disease, spent his leave in Guayaquil, in the South American State of Ecuador. This town possesses an evil reputation as regards yellow fever, which is endemic there, and often assumes epidemic proportions. Guayaquil, it may be added, is notorious all over the Pacific as one of the chief diffusing centres of the disease in South America. The Commissioners state that already certain scientific observations have been made at Lagos, which if confirmed promise to prove of great importance in relation to the etiology of the malady, and in consequence Dr. Harald Seidelin, the well-known yellow fever expert, was despatched to Lagos to examine the results obtained and to confer with the two local investigators, Dr. J. W. Scott Macfie and Dr. J. E. L. Johnston.

At present the Commissioners are not in a position to make any statement concerning the Lagos observations until they are supported by further evidence. The views previously put forward by the late Sir Rubert Boyce are discussed concerning the alleged immunity against yellow fever possessed by natives, and acquired through attacks of the

[1] THE LANCET, April 26th, 1913, p. 1178.

disease in childhood and possibly again in later life. It is not at present possible to affirm or deny the truth of the theory that natives serve as the reservoir of the virus. The Commissioners are satisfied that of the cases which have been recently diagnosed at Lagos and elsewhere as yellow fever a certain number were true examples of that disease. It is thought very probable that the malady which prevailed in West Africa in 1910–11 and in 1912 was genuine yellow fever. The general measures for the reduction of stegomyia in the towns of the West African colonies appear to be defective, and this matter requires immediate attention by all concerned.

*Second Report.*

The second report contains a retrospect (1) of yellow fever in West Africa as a whole; (2) of fevers on the ships of the British navy on the West African station; and (3) of yellow fever in the colonies, both British and foreign, on the West Coast of Africa. Some account is also given of the then existing health conditions in the West African colonies during 1862, a year marked by exceptional prevalence of yellow fever. An analysis is furnished of the epidemics of 1910–11 and 1912. Other subjects, such as racial immunity, clinical types of the disease, and its incidence in childhood, are likewise discussed. In setting out their general conclusions the Commissioners say that there is no evidence to show that the infection in each yellow fever outbreak under review had been introduced from outside Africa. The mild nature of the attack in certain cases makes the identification a matter of difficulty. It is therefore essential that in future all cases of fever should be carefully observed and classified in order that, as far as possible, such mild attacks of yellow fever may not pass unrecognised. The attention of all workers at this subject should be directed specially to the discovery of a clinical test for the disease.

The Commissioners do not underestimate the importance of the researches which are being prosecuted in connexion with the nature of the yellow fever virus, and also those concerning appearances by which its presence could be recognised in the body of the stegomyia mosquito. The possibility is admitted that by such researches the desired clinical test may be found, but the extreme practical importance of being able to determine whether a mild case of fever is or is not yellow fever renders it essential that all possible methods should continue to be employed in the clinical study of the malady. The opinion is expressed that the day has gone by for endeavouring by the use of euphemistic terms to conceal the presence of yellow fever, and that the only hope of eradicating the disease lies in boldly facing the facts. Failure to take all possible steps to destroy a focus of yellow fever is regarded by the Commissioners as an offence against the comity of nations. With regard to the very important etiological researches on the nature of the yellow fever virus, carried out at Lagos by Dr. Macfie and Dr. Johnston,[2] of which mention was made in the first report, the Commissioners reserve their opinion until the issue of their third report, by which time they will have completed the examination of the microscopical and other material which they have received and which illustrate the appearances presented by the "Seidelin bodies" (paraplasma flavigenum) and their possible connexion with the virus of yellow fever. The third report of the Commission should prove very interesting reading.

# Public Health.

## ANNUAL REPORTS OF MEDICAL OFFICERS OF HEALTH.

*City of Liverpool.*—As usual, Dr. E. W. Hope's annual report gives in clear and attractive form a picture of the great range of work undertaken by the medical officer of health's department in a great city. We can only select a few matters of interest, practically at random, from the volume. Those who have been familiar with the incidence of enteric fever in Liverpool in years not long past will be struck by the diagrams which are given as to the recent distribution of this disease. The recurring autumnal epidemic used mainly to be made up of cases in the central area of the city, but now, synchronously with the diminution in number of insanitary court houses, an autumnal rise fails altogether to occur in this area. For the city as a whole, imported cases, and cases attributed to infection by shell-fish, together form a proportion of the total of notified enteric fever cases, which is larger year by year; in 1913 as many as 43 per cent. of the cases are thus accounted for in the report. In that year cockles rather than mussels appear to have been the principal source of infection; the shell-fish were consumed raw or else merely steamed or immersed in hot water till the shells opened. The new measures adopted for treating tuberculosis and recent developments under the National Insurance Act respecting this disease naturally call for much attention in the report. As regards pulmonary tuberculosis, 128 cases were admitted during 1913 to the Fazakerley Sanatorium and 423 to the Park Hill Hospital, which in March of that year was taken over and adapted for the treatment of this disease. Practically all the cases admitted were either insured or dependents of insured. Three "tuberculosis institutes" have been established in Liverpool, to correspond with the "anti-tuberculous dispensaries" mentioned in the Astor Report of 1912. Cases are sent to these institutes by medical men or by the public health or education authorities; comparatively few direct applications from the patients themselves have so far been received. In connexion with the work among children, assistance is given by the Liverpool Invalid Children's Association, particularly in regard to the preparation of the application forms needed if dependents of insured persons are to be admitted into the various homes or institutions available for tuberculosis in children. The completed scheme now coming into operation will as far as possible treat all cases alike, irrespective of their insurance. A considerable amount of domiciliary treatment is given, and Dr. Hope considers that this needs to be put on a more satisfactory footing, so that the patient, by giving a better recognition of the doctor's directions and the doctor by the display of a little more interest in the subject, can unite to "improve the status of official domiciliary treatment." It may be noted that in Liverpool the district sanitary inspectors are fully utilised in the home visiting of notified cases of tuberculosis, where the practitioner agrees to this course being followed. Dr. Hope states that so far as Liverpool is concerned there is no reason to think that the additional amount of attention paid to the treatment of tuberculosis has interfered with the far more valuable and important measures of prevention. The demolition of unhealthy courts and dwellings and their replacement by healthy houses which has been undertaken for so many years still continues; a diagram of the "St. Anne-street Area" before and after its reconstruction is a good object lesson of the thoroughness of the work. Formerly the corporation on account of the cost usually did not buy the public-houses included in areas scheduled for demolition; this policy, however, has now been abandoned; and Dr. Hope highly commends the change. (We would, however, like to see the experiment tried of substituting good working-class restaurants at which beer could be obtained with meals.) New by-laws have been introduced to regulate houses let in lodgings, which give additional powers for dealing with the offences created by not cleansing room floors, stairs, and passages, and the non-separation of sexes. The tenant is now amenable, in addition to the lodger. As regards smoke abatement, great improvement has been effected in recent years by the reconstruction of the furnaces in many factories and the installation of superior appliances for automatic stoking. A new duty has fallen on inspectors from the many complaints of the noise and smell from internal combustion engines, and advice has been given by them on the methods to counteract these nuisances by deodorants and silencers. Public lectures on smoke prevention have been given under the auspices of the University to persons in charge of furnaces with very satisfactory results. The report contains several useful illustrations, though we have some doubt of the moral intended to be drawn from the series of family groups whose photographs appear in the volume.

*Metropolitan Borough of Islington.*—Mr. A. E. Harris reports the registration of 24 deaths from appendicitis during the year, of which 12 occurred below the age of 20 and 7 below the age of 10. It is noteworthy that the number of deaths registered from this cause has remained at about 24 year by year since 1904. There were 19 cases of poliomyelitis notified; practically no connexion was established between them, and the houses affected were all in

[2] THE LANCET, May 10th, 1914, p. 1403.

streets lying off main lines of traffic. No secondary case occurred in any household. Mr. Harris's practice is to disinfect the rooms and bedding in every case, the latter being adopted more for the purpose of bringing the infectious nature of the disease before the minds of the people than because it is considered strictly necessary. In the present state of uncertainty as to the conditions under which poliomyelitis is spread, such precautions are considered desirable, though their empirical nature is admitted. The prompt notification and isolation of diphtheria cases in Islington during the year appears to have had a distinct result in limiting the spread of the disease; the 550 cases notified came from 473 houses; in only 34 of these were there two cases in the house and in only 12 houses were there three cases or more. In as many as 427 houses only one case was known. Mr. Harris alludes to a consideration often lost sight of by those who complain of the cost of hospital isolation of infectious diseases in children. The educational authority will not permit any children to attend school from infected houses, and in the absence of isolation many scholars would have to be absent from school six weeks or more, with the result in loss of education and dislocation of the educational machinery, which would entail a considerable cost; what the ratepayers lose in one direction they gain, or nearly so, in another. The Islington series of reports have always some valuable observations on food inspection and adulteration, and the 1913 report is no exception to the rule. Medical officers who are interested in the history and prevalence of adulteration will find much information in Mr. Harris's chapter on this subject. Generally speaking, the efforts made in this borough appear to be effective in getting food adulteration detected and punished, so far as the limited provisions of the present law allow. In particular, Mr. Harris is satisfied that farmers' milk coming straight to London, on Sundays as well as weekdays, is maintained at high quality, and his results should be gratifying to farmers "who are frequently made the scapegoats of interested persons." The least satisfactory feature of the analyst's reports is the frequency of the fraud of substituting margarine for butter. The machinery for detecting the fraud exists and is skilfully used, but the fraud itself is so profitable that the fines inflicted seem to fail to put a stop to it.

## VITAL STATISTICS.

### VITAL STATISTICS FOR 1914.

THE following statement shows the birth- and death-rates and the rates of infantile mortality in England and Wales and in certain parts of the country during the year 1914, the figures being provisional :—

| — | Annual rate per 1000 living. | | | Deaths under one year to 1000 births. |
|---|---|---|---|---|
| | Births. | Deaths. | | |
| | | Crude. | Standardised.* | |
| England and Wales ... ... ... | 23·6 | 13·9 | 13·6 | 105 |
| 97 great towns, including London ... ... ... ... ... ... | 24·9 | 14·6 | 14·9 | 113 |
| 145 smaller towns ... ... ... | 23·6 | 12·8 | 12·9 | 104 |
| England and Wales less the 242 towns ... ... ... ... ... | 21·9 | 13·3 | 12·2 | 93 |
| London... ... ... ... ... ... | 24·6 | 14·4 | 14·4 | 103 |

* The standardised death-rates are the rates which would have been recorded had the sex and age constitution of the populations of the several areas been identical with that of England and Wales as enumerated in 1901. A description of the method of standardising these death-rates is to be found in the Registrar-General's Annual Report for 1911, p. xxix.

#### HEALTH OF ENGLISH TOWNS.

In the 96 English and Welsh towns with populations exceeding 50,000 persons at the last census, 8897 births and 6545 deaths were registered during the week ended Saturday, Jan. 16th. The annual rate of mortality in these towns, which had been 14·0, 21·3, and 19·4 per 1000 in the three preceding weeks, further fell to 18·8 per 1000 in the week under notice. During the 13 weeks of last quarter the mean annual death-rate in these towns averaged 14·9, against a corresponding rate of 15·3 per 1000 in London. The annual death-rate last week ranged from 7·2 in Gloucester, 11·2 in Tottenham, 12·9 in Rhondda, 13·0 in Smethwick, and 13·2 in Northampton, to 25·1 in Lincoln, 25·2 in Ipswich, 26·0 in Blackpool, 26·3 in Gillingham, and 28·8 in Merthyr Tydfil.

The 6545 deaths from all causes were 191 fewer than the number in the previous week, and included 454 which were referred to the principal epidemic diseases, against 575 and 487 in the two preceding weeks. Of these 454 deaths, 195 resulted from measles, 76 from whooping-cough, 75 from infantile diarrhœal diseases, 63 from diphtheria, 34 from scarlet fever, and 11 from enteric fever, but not one from small-pox. The mean annual death-rate from these diseases was equal to 1·3, or 0·1 per 1000 less than in the previous week. The deaths attributed to measles, which had been 175, 269, and 183 in the three preceding weeks, rose to 195 last week, and caused the highest annual death-rates of 2·1 in Newcastle-on-Tyne, 2·3 in Wigan, 2·5 in Plymouth, 2·6 in Enfield and in Darlington, 3·1 in St. Helens, 3·3 in Huddersfield, 4·6 in Grimsby, and 6·7 in Merthyr Tydfil. The deaths referred to whooping-cough, which had steadily increased from 35 to 93 in the eight preceding weeks, fell to 76 last week, and included 13 in London, 6 in Leeds, 5 in Sunderland, 4 each in Willesden, Bristol, and Liverpool, and 3 in Newcastle-on-Tyne. The fatal cases of diarrhœa and enteritis (among infants under 2 years), which had been 70, 86, and 84 in the three preceding weeks, further fell to 75 last week, of which 20 were registered in London, 6 each in Birmingham and Manchester, and 4 in Bristol. The deaths attributed to diphtheria, which had been 66, 89, and 77 in the three preceding weeks, further fell to 63 last week, and included 15 in London, 5 in Liverpool, and 3 each in Birmingham and Manchester The deaths referred to scarlet fever, which had been 30, 31, and 35 in the three preceding weeks, were 34 last week, of which 10 occurred in London, 3 in Sheffield, and 2 each in Manchester and Preston. The fatal cases of enteric fever, which had been 12, 20, and 15 in the three preceding weeks, further declined to 11 last week, and included 2 in Portsmouth.

The number of scarlet fever patients under treatment in the Metropolitan Asylums Hospitals and the London Fever Hospital, which had declined from 5035 to 4153 in the seven preceding weeks, had further fallen to 3952 on Saturday last; 338 new cases were admitted during the week, against 348, 436, and 321 in the three preceding weeks. These hospitals also contained on Saturday last 1641 cases of diphtheria, 82 of measles, 61 of enteric fever, and 34 of whooping-cough, but not one of small-pox. The 1702 deaths from all causes in London were 36 less than in the previous week, and corresponded to an annual death-rate of 19·6 per 1000. The deaths referred to diseases of the respiratory system, which had been 270, 562, and 497 in the three preceding weeks, further fell to 472 in the week under notice, but were 72 in excess of the number in the corresponding week of last year.

Of the 6545 deaths from all causes in the 96 towns, 211 resulted from different forms of violence and 463 were the subject of coroners' inquests, while 1742 occurred in public institutions. The causes of 64, or 1·0 per cent. of the total deaths, were not certified either by a registered medical practitioner or by a coroner after inquest. All the causes of death were duly certified in Sheffield, Leeds, Bristol, West Ham, Hull, Newcastle-on-Tyne, and in 66 other smaller towns. Of the 64 uncertified causes 13 were registered in Liverpool, 12 in Birmingham, 5 in Gateshead, and 3 in London.

#### HEALTH OF SCOTCH TOWNS.

In the 16 largest Scotch towns with an aggregate population estimated at 2,344,400 persons at the middle of this year, 1123 births and 1027 deaths were registered during the week ended Saturday, Jan. 16th. The annual rate of mortality in these towns, which had steadily increased from 17·7 to 24·5 per 1000 in the five preceding weeks, declined to 22·8 per 1000 in the week under notice. During the 13 weeks of last quarter the mean annual death-rate in these towns averaged 16·8, against 14·9 per 1000 in the large English towns. The annual death-rate last week ranged from 14·1 in Kilmarnock, 14·9 in Leith, and 15·1 in Motherwell, to 27·4 in Greenock, 28·2 in Dundee, and 29·5 in Ayr.

The 1027 deaths from all causes were 73 fewer than in the previous week, and included 92 which were referred to the principal epidemic diseases, against numbers increasing from 77 to 117 in the three preceding weeks. Of these 92 deaths, 56 resulted from whooping-cough, 10 from diphtheria, 9 from scarlet fever, 7 from infantile diarrhœal diseases, 7 from measles, and 3 from enteric fever, but not

one from small-pox. The mean annual death-rate from these diseases was equal to 2·0, against 1·3 per 1000 in the large English towns. The deaths attributed to whooping-cough, which had been 28, 44, and 55 in the three preceding weeks, were 56 last week, and included 30 in Glasgow, 11 in Dundee, 5 in Aberdeen, and 4 in Clydebank. The deaths referred to diphtheria, which had been 16, 14, and 21 in the three preceding weeks, fell to 10 last week, of which 4 were registered in Edinburgh and 2 in Aberdeen. The fatal cases of scarlet fever, which had been 15, 17, and 13 in the three preceding weeks, further fell to 9 last week, and comprised 6 in Glasgow and 3 in Aberdeen. The deaths of infants (under 2 years) attributed to diarrhœa and enteritis, which had been 12, 11, and 17 in the three preceding weeks, fell to 7 last week, of which 4 belonged to Glasgow. The deaths referred to measles, which had been 5, 10, and 7 in the three preceding weeks, were again 7 last week, and comprised 6 in Dundee and 1 in Glasgow. The 3 fatal cases of enteric fever occurred in Glasgow, and were slightly in excess of the average in recent weeks.

The deaths referred to diseases of the respiratory system, which had steadily increased from 154 to 265 in the five preceding weeks, further rose to 275 in the week under notice; 35 deaths resulted from different forms of violence, against 42 and 32 in the two preceding weeks.

### HEALTH OF IRISH TOWNS.

In the 27 town districts of Ireland with an aggregate population estimated at 1,212,380 persons at the middle of this year, 693 births and 568 deaths were registered during the week ended Saturday, Jan. 16th. The annual rate of mortality in these towns, which had been 17·0, 27·8, and 26·5 per 1000 in the three preceding weeks, further declined to 24·4 per 1000 in the week under notice. During the 13 weeks of last quarter the mean annual death-rate in these towns averaged 18·8, against 14·9 and 16·8 per 1000 in the English and Scotch towns respectively. The annual death-rate last week was equal to 29·2 in Dublin (against 19·6 in London and 24·2 in Glasgow), 21·7 in Belfast, 29·9 in Cork, 27·8 in Londonderry, 17·6 in Limerick, and 30·4 in Waterford, while in the 21 smaller towns the mean death-rate did not exceed 18·3 per 1000.

The 568 deaths from all causes were 47 fewer than in the previous week, and included 48 which were referred to the principal epidemic diseases, against 42 and 38 in the two preceding weeks. Of these 48 deaths, 14 resulted from infantile diarrhœal diseases, 12 from measles, 10 from whooping-cough, 8 from scarlet fever, 3 from diphtheria, and 1 from enteric fever, but not one from small-pox. The mean annual death-rate from these diseases was equal to 2·1, against 1·3 and 2·0 per 1000 in the English and Scotch towns respectively. The deaths of infants (under 2 years) attributed to diarrhœa and enteritis, which had been 9, 10, and 11 in the three preceding weeks, further rose to 14 last week, and included 7 in Dublin and 2 in Belfast. The deaths referred to measles, which had been 9, 9, and 6 in the three preceding weeks, rose to 12 last week, and comprised 10 in Belfast and 2 in Cork. The fatal cases of whooping-cough, which had increased from 3 to 11 in the five preceding weeks, were 10 last week, of which 5 belonged to Belfast and 3 to Dublin. The deaths attributed to scarlet fever, which had been 3, 9, and 2 in the three preceding weeks, rose to 8 last week, and comprised 5 in Belfast, 2 in Cork, and 1 in Waterford. The deaths referred to diphtheria were recorded in Belfast, Cork, and Portadown, and the fatal case of enteric fever in Dublin.

The deaths referred to diseases of the respiratory system, which had been 96, 162, and 139 in the three preceding weeks, rose to 164 in the week under notice. Of the 568 deaths from all causes, 140, or 25 per cent., occurred in public institutions, and 8 resulted from different forms of violence. The causes of 25, or 4·4 per cent., of the total deaths were not certified either by a registered medical practitioner or by a coroner after inquest; in the English towns the proportion of uncertified causes did not exceed 1·0 per cent.

**EDINBURGH UNIVERSITY CHAIR OF MEDICINE.**—Eight applications have been made for the chair of practice of medicine in the University of Edinburgh, rendered vacant by the retirement of Professor John Wyllie from ill-health. The patronage of the chair, which was previously the gift of the town council of Edinburgh, was by the Universities Act of 1858 transferred to seven curators—three nominated by the University Court and four by the town council. The following is a list of the candidates: Dr. Edwin Bramwell, Dr. J. J. Graham Brown, Dr. John D. Comrie, Dr. Robert A. Fleming, Dr. G. Lovell Gulland, Dr. Alexander Morison, Dr. Harry Rainy, and Dr. Chalmers Watson. With the exception of Dr. Morison, who is senior physician to the Great Northern Central Hospital, London, all the candidates are physicians to the Royal Infirmary and lecturers in Edinburgh.

# THE SERVICES.

### ROYAL NAVY MEDICAL SERVICE.

THE following appointments have been made:—Fleet-Surgeon: H. L. Penny to the *Vivid*, additional, for disposal. Staff-Surgeon: T. E. Blunt to the *Pembroke*, additional, for disposal. Surgeon: G. F. B. Page to the *Vivid*, additional, for disposal; and W. A. S. Duck, A. Fairley, and L. Moss to the *Victory*, additional, for disposal. Temporary Surgeons: J. A. Gordon, P. A. Lemass, J. F. McQueen, and G. L. Ritchie to the *Victory*, additional; F. T. Fisher to the *Pembroke*, additional, for disposal; and E. M. Lauderdale to the *Victory*, additional, for Haslar Hospital.

James Grimoldby has been granted a temporary commission as Surgeon in His Majesty's Fleet.

### ROYAL NAVAL VOLUNTEER RESERVE.

Temporary Commissions in the Royal Naval Volunteer Reserve have been issued as under:—Lieutenants: Ambrose Congreve, Redmond Walter McGrath. Surgeon: Frederick William Willway.

Surgeon Probationer: J. C. Sinclair to the *Woolwich*, for the *Badger*, vice S. R. Prall (resigned).

### ARMY MEDICAL SERVICE.

Brevet Colonel William H. Horrocks is appointed an Honorary Surgeon to the King, vice Surgeon Major-General Sir J. B. C. Reade, K.C.B. (dated Nov. 6th, 1914).

Colonel Thomas J. O'Donnell, D.S.O., is retained on the active list under the provisions of Article 120, Royal Warrant for Pay and Promotion, and to be supernumerary (dated Jan. 18th).

### ROYAL ARMY MEDICAL CORPS.

Supernumerary Captain Wilfred W. Treves is restored to the establishment (dated Jan. 14th).

Supernumerary Captain John Gilmour is restored to the establishment (dated Jan. 7th).

Lieutenant Robert William Walter Vaughan relinquishes his temporary commission (dated Dec. 31st, 1914).

Lieutenant William H. Johnston resigns his commission (dated Jan. 16th).

Lieutenant John Spencer-Daniell relinquishes his temporary commission (dated Jan. 19th).

The undermentioned to be temporary Captains:—Gordon Morgan Holmes (dated Nov. 5th, 1914), Claude Gouldesbrough (dated Dec. 28th, 1914) and James Ewing (dated Jan. 5th).

Temporary Lieutenant Thomas Renton Elliott to be temporary Captain (dated Jan. 14th).

The undermentioned to be temporary Captains whilst serving with the Red Cross Hospital, Netley:—Dated Jan. 19th: Donovan Blaise Pascall and Walter Gibson Marsden.

The undermentioned to be temporary Lieutenants:—Dated Nov. 2nd, 1914: Francis Hubert Storey. Dated Dec. 15th, 1914: Archibald Hector Maccoll Robertson. Dated Dec. 16th, 1914: Charles Cavanagh. Dated Dec. 17th, 1914: George William Fleming. Dated Dec. 18th, 1914: Donald Campbell. Dated Dec. 20th, 1914: Alfred George Caldwell. Dated Dec. 21st, 1914: Robert John Jones, Albert Edmund Samuel Martin, Charles Sand, Herbert Harland Raw, George Llewellyn Brunton, and Roland Henry Fletcher. Dated Dec. 22nd, 1914: Francis De Sales McMenamin. Dated Dec. 23rd, 1914: Leslie Charles Johnston, George Mitchell, Archibald Langwill, Alfred Squire Taylor, and Lacey Bathurst. Dated Dec. 24th, 1914: John Warwick. Dated Dec. 28th, 1914: Jerome Ivo O'Sullivan, Michael Sullivan, Robert Archibald Slater Sunderland, Mortimer Hynes, Norman Garfield Thornley, James Sackville Martin, Robert McLeod Veitch, Edward Mansfield, John Hannay Douglas, Martin Melvin Cruickshank, David Cochrane Hanson, William De Malet Peyton, Harrold John Pickering, David Haig, Alan Everley Taylor, Edgar Coningsby Myott, Harry Stanger, Sylvester Davidson Fairweather, Hugh Faulkner, Henry William Turner, Peter Reid, James Allison, Herbert Donald Robertson, Cyril Charles Coleby Kirke White, Charles Henry Nash, and James Gaston. Dated Dec. 30th, 1914: Alexander Kirkpatrick Cosgrave, William Norman Watson, Harold Benge Atlee, Leslie Douglas Roberts, Ellis Thomas Evans, Samuel Robert Richardson, Harry Hunter Carter, Richard Ernest Sedgwick, Frederick Dearden Walker, and William Taylor. Dated Dec. 31st, 1914: Hubert Cowell Mulkern, Francis O'Neill, George Thomson Mowat, and Mortimer Henry Pearson. Dated Jan. 3rd: Norman Peace Lacy Lumb and Dawson Cameron Robertson.

### INDIAN MEDICAL SERVICE.

Major R. A. Lloyd to be temporary Lieutenant-Colonel whilst in charge of No. 12 Indian General Hospital at Brockenhurst (dated Nov. 25th, 1914).

### SPECIAL RESERVE OF OFFICERS.

*Royal Army Medical Corps.*

The undermentioned Lieutenants are confirmed in their rank: Robert A. Anderson, Hallowes L. Addison, John G.

Bennett, George B. Hadden, Francis J. Hallinan, Thomas P. Inglis, William M. Lansdale, Francis C. Lapage, David S. Martin, and Thomas Sheedy.

### TERRITORIAL FORCE.

*Army Medical Services.*

Lieutenant-Colonel Conrad T. Green, from the Welsh Casualty Clearing Station, to be Assistant Director of Medical Services, Welsh Reserve Division, and to be granted the rank of Colonel (temporary).

Lieutenant-Colonel Harry T. Challis, from the 3rd East Anglian Field Ambulance, to be Assistant Director of Medical Services, East Anglian (Reserve) Division, with the temporary rank of Colonel.

*Yeomanry.*

Yorkshire Hussars (Alexandra, Princess of Wales's Own): Surgeon-Captain Walter Henry Cheetham to be Surgeon-Major (temporary).

*Royal Army Medical Corps.*

Surgeon-Major Edward Herbert Myddelton-Gavey (Retired List, Honourable Artillery Company) to be Major.

3rd East Anglian Field Ambulance: Captain William I. Cowell resigns his commission on account of ill-health.

2nd Highland Field Ambulance: Captain James Forbes MacIntosh to be Major (temporary).

1st West Riding Field Ambulance: To be Lieutenants: Edwin Samuel George Fowler and Henry Whitteron Robinson.

3rd London General Hospital: Stanley Herbert Warren to be Captain, whose services will be available on mobilisation. To be Lieutenants: John Bromley Rawlins and Cecil Rhodes Harrison.

3rd Scottish General Hospital: Captain Alexander J. Archibald, from the 4th Scottish General Hospital, to be Captain.

1st London (City of London) Sanitary Company: Lieutenant Cresacre G. Moore to be Captain (temporary).

2nd London Sanitary Company: To be Lieutenants: Patrick Albert Galpin, George Gordon Johnstone, George Leslie Eastes, Gerald Quin Lennane, George William Ellis, Walter Key Parbury, John H. Wood, and Ernest B. Pike.

2nd London Casualty Clearing Station: To be Captains: George Herbert Hunt and Lionel Colledge.

2nd North Midland Field Ambulance: Lieutenant Horace Guy L. Haynes, from Attached to Units other than Medical Units, to be Lieutenant.

1st Northumbrian Field Ambulance: The undermentioned Lieutenants to be Captains (temporary): Edward B. Kitching and Joseph W. Craven.

2nd Northumbrian Field Ambulance: William Craig Stewart to be Lieutenant.

1st London (City of London) General Hospital: Charles Ernest West to be Captain, whose services will be available on mobilisation.

4th Northern General Hospital: George Samuel Levis to be Captain, whose services will be available on mobilisation. Plomer William Young to be Captain, whose services will be available on mobilisation.

3rd Southern General Hospital: James Frederick Robinson to be Captain, whose services will be available on mobilisation.

South Wales Mounted Brigade Field Ambulance: John Ambrose Cooke to be Lieutenant.

3rd Home Counties Field Ambulance: Henry John Brownrigg and Philip Theodosius Jones to be Lieutenants.

1st East Lancashire Field Ambulance: Lieutenant Stanley Hodgson, from Attached to Units other than Medical Units, to be Lieutenant.

2nd East Lancashire Field Ambulance: John James Hummel to be Lieutenant.

2nd West Riding Field Ambulance: William Herbert Smailes and Digby Wrangham Hardy to be Lieutenant.

1st Northern General Hospital: Major Frederick C. Pybus, from the permanent personnel to the list of officers whose services will be available on mobilisation. Captain Daniel W. Patterson, from the list of officers whose services will be available on mobilisation to the permanent personnel.

3rd Northern General Hospital: The undermentioned to be Lieutenants: Arthur Robertson Wightman and George Ewart Martin.

Notts and Derby Mounted Brigade Field Ambulance: Frank Standish to be Lieutenant.

West Riding Casualty Clearing Station: Lieutenant-Colonel William McGregor Young, from the 2nd West Riding Field Ambulance, to be Lieutenant-Colonel.

The undermentioned to be Lieutenants: Charles Marsh Gozney and Arthur Stuart Hebblethwaite.

Sanitary Service: Albert Henry Bygott to be Captain, whose services will be available on mobilisation.

*Attached to Units other than Medical Units.*—To be Majors (temporary): Captain Matthew B. Ray, Captain Robert Thornton, and Captain Vincent Howard. To be Captains (temporary): Lieutenant George C. Jeaffreson and Lieutenant Richard V. Favell. Lieutenant Cecil W. Rowntree is seconded. To be Lieutenants: Hugh Douglas McCrossan, Harold Francis Lewis Hugo, and Thomas Rhind.

### TERRITORIAL FORCE RESERVE.

*Royal Army Medical Corps.*

Captain Edward P. Minett, from the 6th London Field Ambulance, to be Captain.

### TEMPORARY COMMISSIONS IN THE ROYAL ARMY MEDICAL CORPS.

It is notified by the War Office that there are several vacancies for temporarily commissioned officers in the Royal Army Medical Corps. Candidates should be fully qualified medical men, under 40 years of age. Applications should be made at once to the Secretary, War Office, Whitehall.

### OUTFIT ALLOWANCES.

By a recent Army Order all officers granted permanent first commissions in the R.A.M.C. since August 4th and during hostilities will receive an outfit allowance of £50, to include cost of camp kit. Officers granted temporary first commissions will receive £30 and £7 10*s*. for camp kit.

### DEATHS IN THE SERVICES.

Deputy Surgeon-General George Alder Watson, I.M.S., Bengal Army, retired, at the age of 83, at his residence, Hendre, Cheltenham, on Jan. 12th. He entered the Bengal Medical Service in 1855, and during the Indian Mutiny served with the 6th Battalion Bengal Artillery at Mhow in 1857, at the siege of Dhar, and also in the actions near Mundisore and Goorarea (medal and clasp). He served in the Afghan War of 1879 and took part in the advance on Kandahar and Kelat-i-Ghilzai (medal). He retired in 1885.

The King has given to Temporary Surgeon James Charles Baggs, R.N., late medical officer of health, Monthon Puket, authority to wear the Insignia of the Fourth Class of the Order of the Crown of Siam, which has been conferred upon him by His Majesty the King of Siam, in recognition of valuable services rendered.

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**THE BEQUESTS OF THE LATE DR. I. BURNEY YEO.**—Dr. I. Burney Yeo, emeritus professor of medicine at King's College, whose death was recently recorded in our columns, left estate valued at £95,413, with net personalty of £94,366. By his will he left £3000 to the Royal Medical Benevolent Fund to found an annuity fund to be known as "The Burney Yeo Bequest"; £3000 to the Royal Medical Benevolent College, Epsom, for a similar purpose; and £5000 to King's College (London) Hospital Medical School for a "Burney Yeo Fund" to be used for furthering the success of the school. After making some personal bequests he left the ultimate residue of his estate, one moiety to the Royal Medical Benevolent Fund and the other to the Royal Medical Benevolent College. The work of the Royal Medical Benevolent Fund is regularly recorded in our columns, and our readers know how invaluable it is. The medical foundation of Epsom College offers educational and pecuniary advantages of the highest sort to the sons of medical men. The generous bequest to the College will materially help towards the £7000 a year which is required for the relief of urgent cases. Dr. Burney Yeo by his disposition of his fortune has become a great medical benefactor of the medical profession.

**MEDICAL SICKNESS, ANNUITY, AND LIFE ASSURANCE SOCIETY.**—The usual monthly meeting of the executive committee of this society was held on Jan. 15th, Dr. F. J. Allan in the chair. The reports were considered on members permanently incapacitated, of whom there are now 42 receiving annually over £4000 in sickness benefit. The society provides, practically, an annuity to age 65 of from £1 1*s*. to £3 3*s*. per week for each member so afflicted. The year, as a whole, has been highly successful. About 120 members are serving either at the front or with their regiments at home and in the colonies. So far only three claims have been made as a direct result of the war, two being from illnesses contracted owing to exposure and overwork and one from a death resulting from wounds. Applications are constantly being received from younger members of the profession taking temporary commissions in the Royal Army Medical Corps or serving in the various Red Cross and base hospitals. All inquiries in respect of these should be addressed to the secretary, Mr. Bertram Sutton, 300, High Holborn, W.C.

# Correspondence.

"Audi alteram partem."

## THE PRESS AND ANTITYPHOID INOCULATION.

*To the Editor of* THE LANCET.

SIR,—I notice in this evening's issue of the *Evening Standard* a full-page advertisement (p. 13) on behalf of the "British Union for the Abolition of Vivisection." The antivivisectionists can be ignored on account of their stupidity, but this particular advertisement deserves the most severe censure in that it is anti-recruiting.

The only way to deal with such a paper is on their own lines—commercial. I hope, therefore, that all medical men, like myself, will in future refuse to buy it.

I am, Sir, yours faithfully,

HUNTER TOD.

Upper Wimpole-street, W., Jan. 19th, 1915.

## ANATOMY AT THE PRIMARY FELLOWSHIP EXAMINATION.

*To the Editor of* THE LANCET.

SIR,—I have been asked repeatedly by other people than unsuccessful candidates to write to you about the questions being set in the anatomical part of the primary examination for the F.R.C.S. The trouble is that this, which used to be a perfectly straightforward though difficult examination in topographical anatomy, seems now to be tending to become in addition a test of the candidate's knowledge of the more philosophical side of the science. I hesitate to add to the troubles which I know surround the examiners for the Primary Fellowship at all times, but I think that they may possibly bear with or even welcome the experience of one who has served a ten years' apprenticeship in the post which they now fill. It should be remembered that the primary examination is the point at which most candidates for the keenly sought diploma of Fellow are rejected, and the examiner's chief duty is to do his utmost to prevent men passing until they are well enough grounded in anatomy to be able to make the most of the higher teaching in surgery which they are to receive later.

Anatomy has two sides. Firstly, a working knowledge of all the parts of a most complicated machine; this is topographical or descriptive anatomy. Secondly, the philosophical study of why all these parts are as they are, a study which is often though perhaps loosely called morphology and depends upon a previous acquaintance with the allied sciences of comparative anatomy, embryology, anthropology, and physics. In my earlier days as an examiner I thought that this study of morphology, with its fascinating suggestions and ever-changing theories, was the very thing to broaden the mind of the young surgeon and keep him from becoming a mere mechanic; but I am sorry to say that experience has greatly modified this view. I still think that a year's practical work at comparative anatomy and embryology would be a most excellent training for the student of human anatomy, but very few medical students have this year to give, and my experience leads me to think that if morphological questions are to become a feature of this examination candidates will seek the aid either of small text-books, which they will try to learn by heart, or of crammers whom they will trust to gauge quickly and skilfully the range of knowledge which each examiner has and the kind of questions he is likely to ask.

The average time which a candidate presenting himself for the first time for this examination spends on learning his anatomy and physiology is, I think, from 20 months to two years. This is not a bit too long for him to learn his way thoroughly and confidently about the human body. But if morphology is expected in addition the technical pilot's knowledge of the body must suffer, and the subject is so vast that it must always be a chance whether a man happens to be able to do justice to a morphological question or not. If he has had the question intelligently anticipated for him he, of course, scores heavily, and may thus make up for serious gaps in his knowledge of the real anatomy of man.

My point is that a surgeon should be at home in any part of the human body, and a clever man can just get this knowledge in two years or a little less. To ask more is to endanger the acquisition of this real knowledge and to substitute for it, to some extent, an ill-digested mass of theory derived from text-books and class notes. Perhaps I am unduly hard on the value of the scientific side of anatomy, although it is my hobby; but I am only considering now the education of the young surgeon, and am anxious to remind myself and others that what we examiners ask the students will learn—usually in the easiest and least permanent way. A practical knowledge of the body is so essential and so easily detected that I am loth to see candidates given the chance of substituting for it a second-hand knowledge of the more interesting though less useful science of morphology.

I am, Sir, yours faithfully,

St. Thomas's Hospital, Jan. 13th, 1915. F. G. PARSONS.

## THE PHARMACOPŒIAL DOSE.

*To the Editor of* THE LANCET.

SIR,—I am instructed on behalf of the pharmacists of Great Britain to solicit your aid in calling the attention of the medical profession to the wording of a portion of the preface to the new British Pharmacopœia. In that preface the following statement is made:—

> It must be clearly understood that the "doses" mentioned in the Pharmacopœia are not authoritatively enjoined by the Council as binding upon prescribers. They are intended merely for general guidance, and represent in each instance the average range of the quantities which, in ordinary cases, are usually prescribed for adults. The medical practitioner will exercise his own judgment and act on his own responsibility in respect of the amount of any therapeutic agent he may prescribe or administer. Where, however, an unusually large dose appears to be prescribed, it is the duty of the pharmacist or dispenser to satisfy himself that the prescriber's intention has been correctly interpreted.

As a consequence a somewhat onerous obligation is cast upon pharmacists, and although there is not the slightest reason to suspect that the members of the medical profession, speaking generally, will do anything to render the task of the pharmacist more difficult, it is felt that if the attention of practitioners were specially directed to the new condition of things they would be more prepared to coöperate in those few cases where it might be necessary for

a pharmacist to refer back a prescription to the prescriber.

If it could be arranged as a uniform practice that where a practitioner orders an unusually large dose of any particular potent drug such dose should be initialled by the prescriber, all possibility of ambiguity would thereby be removed.

I am, Sir, yours faithfully,

W. J. UGLOW WOOLCOCK,
Secretary, Pharmaceutical Society of Great Britain.

Bloomsbury-square, W.C., Jan. 15th, 1915.

## NON-PANEL PRACTITIONERS AND INSURANCE ACT CERTIFICATES.

*To the Editor of* THE LANCET.

SIR,—Previous to the passage of the National Insurance Act, and since, I have been a very active and strong opponent of the "medical benefit" clauses of the Act. I have always considered it to be, and still hold the same opinion, derogatory to the members of the profession to accept service on the panel on the terms and conditions under which service is rendered. During the operation of the Act I have been consulted by large numbers of insured persons, and when necessary have given them certificates of illness as a non-panel practitioner, which have always been accepted by the Approved Societies of which they were members, and their so-called "sickness benefit" has been paid. In consequence of the new scheme embodied in Memorandum 211/I.C. on the question of "certificates for sickness benefit," whereby all certificates have to be uniform, I, on the suggestion of the National Medical Union, wrote to the clerk of the London Insurance Committee requesting him to send me a supply of the "official certificates" for use in the case of insured persons who may consult me in the future. The reply I received is given below.

In view of the decision in the case of "Heard *v.* Pickthorne" this appears to me an attempt to "bluff" non-panel practitioners and to force them to place their names on the panel.

I am, Sir, yours faithfully,

London, Jan. 13th, 1915. JOHN MACKEITH.

[ENCLOSURE.]

With reference to your letter of Jan. 3rd, 1915, I have to inform you that the Committee are able to supply forms for medical certificates to practitioners who are on the panel and also to those practitioners with whom insured persons have been granted permission to make their own arrangements. As you are not on the London panel, and further, as no insured person has been allowed to make his own arrangements with you, it is not possible for the Committee to supply you with certificate forms as you request.

I am, &c.,

(Signed) THOMAS BATEY,
Clerk of the Committee.

*To the Editor of* THE LANCET.

SIR,—The following are two incidents illustrating the latest attempts on the part of the Government to crush such of us as do not approve of the National Insurance Act. One of our members has reported to me that an insured patient under his care complained that although her sick money had been paid up to the end of the year it was now being withheld owing to his certificate being of no use because not on the proper form. He thereupon wrote to the clerk of the Local Insurance Committee requesting to be supplied with a book of the new forms, but was told that his request could not be entertained as such forms were only issued to panel doctors. He has since forwarded the correspondence to the Insurance Commissioners with a request for the redress of this injustice, which seems to me about as hopeful as a complaint from the shepherd to the wolf would be, more particularly seeing that he has since found out that on receipt of his request the clerk wired to the Commissioners for instructions.

In a second case of deadlock our member prompted the insured patient to write to the secretary of her approved society pointing out that as she had been regular in her subscriptions she expected them on their part to be prompt in their payments, seeing that she had complied with the law by presenting the certificates of a qualified medical man. He wrote on his own account pointing out that the society's action was not only distinctly illegal, but also calculated to damage him, and that failing a retraction and apology within 48 hours he would take the case into the law courts. The retraction and apology were forthcoming within the time limit.

I forward these examples of injustice not as a plea for help from the powers that be, or should be, for non-panel men have learnt to be self-reliant, but simply as a further example of the curious fact that in borrowing this national insurance scheme from its makers the Government have gone the whole hog in the assimilation of German methods of ruthlessness mixed with bluff. It has never been easy to tell what the General Medical Council might or might not hold to be infamous conduct. Had they so considered the tearing up of the pledge and undertaking they might have saved the profession much loss of dignity and the general public much monetary loss and suffering, but they apparently had no foreknowledge of the importance since attributed to "scraps of paper." Such is the part played by time and chance in the affairs of men.

Of the unpopularity of the National Insurance Act there are many signs, not the least significant being the spectacle of the Minister on whose shoulders the mantle of Elijah has been unloaded wandering in search of a safe seat.

I am, Sir, yours faithfully,

FRANCIS HEATHERLEY,
Honorary Secretary, Liverpool Non-panel Union.

Rock Ferry, Jan. 18th, 1915.

## THE DIAGNOSIS OF PANCREATITIS.

*To the Editor of* THE LANCET.

SIR,—One heading only is absent from Sir Frederic Eve's Bradshaw lecture published in THE LANCET of Jan. 2nd—not that there is either gap in its exhaustive treatment of the subject or thought of under-rating the importance of diagnosis: the omission is plainly descriptive of the present status of that rather essential chapter. The ground is partly covered by the lecturer's remarks; an important fraction of it too by his suggestive diagram to guide the operator. I need not trespass at much length upon your space, as there is little I can add to previous statements, to which the references are subjoined.[1] The diagram

[1] 1898: The Diagnostic Uses of Percussion of the Vertebral Spines, with General Remarks on "Pleximetric" Bones and Viscera, THE LANCET, July 2nd, p. 23. 1899: On the Clinical Uses of Dorsal Percussion, &c., Brit. Med. Jour., vol. ii., p. 1167; On the Practical Aspects of Dorsal Percussion, and in Particular of the Percussion of the Spine, THE LANCET, July 29th, p. 261; et passim utroque. 1912: Cf. The Pre-operative Diagnosis of Appendicitis, &c., Brit. Med. Jour., vol. ii., p. 1741. 1914: Dorsal Examinations in Undiagnosed Abdominal Affections (with Special Reference to Pancreatitis and Appendicitis), ibid., vol. i., p. 453.

shows that the "vertebral" contact of the pancreas is almost as direct as the heart's "sternal" contact, whilst his statement confirms the experience of pathologists that swelling of the gland (sometimes much swelling) is the rule at the early stage. The sequel, *quâ* localisation, is largely governed by the decubitus, which is inevitably dorsal. Any fluid collections, whether cystic, hæmorrhagic, or purulent, inevitably seek the dorsal plane of the thoracic and of the lumbar spinal groove, in close approach to the dorsal surface. In that mechanical predicament, if we should have any use for evidence from physical signs, these might more probably be found in the safe exploration of the unconcerned dorsal field than in the danger zone of a tender and badly implicated abdomen, even though, as is sometimes reported, this should not be at first tumefied. To that statement there is nothing this letter can add, but to ask, Why should we strain to percuss at a pericardial effusion, happily seldom now fatal, nay, often apt to be a merely ephemeral rheumatic episode? Why percuss the liver for congestion, or cyst, or abscess if the deadly risks of pancreatitis and of its operations are not an urgent appeal for physical signs when available? Granted that British medicine may not be singular in that lofty indifference for the aid of physical examination (where can this be harmlessly applied except at the back?); that safety "in numbers" adds none to the patient. He is diagnosed—normally after death; not infrequently by the operation; rarely without it; but it would seem never by any examination for his dorsal physical signs, which keep faith with him to the grave.

I am, Sir, yours faithfully,

Upper Brook-street, W., Jan. 8th, 1915. WILLIAM EWART.

## FROST-BITE.

*To the Editor of* THE LANCET.

SIR,—In Mr. A. W. Mayo-Robson's opportune article on Frost-bite in THE LANCET of Jan. 16th I note that he does not suggest any internal medication, and that for prevention he only urges care of the feet and legs in various ways. In view of the analogy, pointed out by himself, between mild frost-bite and chilblains, I would like to ask whether he or any reader of THE LANCET has tried calcium salts for prevention or cure of frost-bite. Since two days' medication with liquor calcii chloridi, ℥ 60 in all, proves almost a specific for chilblains, the fact suggests the possibility of its usefulness, either for prophylaxis or treatment of the graver trouble. Moreover, calcium favours the coagulation of the blood if wounds are also incurred. The lactate would be more convenient under war conditions, and is reputed about as efficacious if fresh.

I am, Sir, yours faithfully,

FRANCES EDE, L.S.A.

Upper Berkeley-street, W., Jan. 18th, 1915.

## THE TREATMENT OF COMPOUND GUN-SHOT FRACTURES OF LONG BONES.

*To the Editor of* THE LANCET.

SIR,—I was glad to see in THE LANCET of Jan. 16th that you have drawn attention to the doubts at present subsisting as to the best treatment of compound fractures of the long bones occurring on the field of battle and caused by bullets or shells. The matter to be decided is by no means easy, and we shall be, as you say, in a much better position to settle these questions at the end of the war, when all the statistics will be available to which the war will give rise; but the matter is urgent, and the medical department of the army with its civil consulting surgeons will do well to give the matter immediate attention. My object, however, is not so much to insist on the importance of a consideration of the general treatment of these serious conditions, but to express my personal opinion as to the undesirability of ever plating or wiring any of these compound fractures. In civil practice, with all the facilities which are afforded by well-found hospitals, it has gradually come to be recognised by most surgeons that compound fractures should never be wired or plated. This opinion has been of only slow growth; for a long time it was felt that, as in a compound fracture the bone was already exposed, the surgeon was more readily justified in applying a plate immediately than in a simple fracture; but the results of this practice have shown that almost invariably compound fractures plated immediately do badly, and sooner or later the plate has to be removed. If such unsatisfactory results are almost certain in peace time, how can we expect better results when the operation has to be performed under greater difficulties, and in wounds probably much more septic than commonly found in civil practice, and when, further, a greater length of time has elapsed since the infliction of the injury? Moreover, the need to remove the plate later is only the least of the evils which may follow this method of treatment. It may lead to loss of the limb or even loss of life itself. I am writing with no personal knowledge of the work on the other side of the Channel, but I have heard that such attempts have been made, and I feel strongly that these heroic attempts to obtain perfect results may often lead to utter failure and loss of life or limb. Will not some of those who have seen wiring and plating of compound fractures in this war tell us definitely what results have been obtained? We shall all receive the information gratefully, and, provided care is taken to make the statistics correct, such information must prove of great benefit to us all.

I am, Sir, yours faithfully,

Jan. 18th, 1915. F.R.C.S.

## "TENDIMUS HUC OMNES."

*To the Editor of* THE LANCET.

SIR,—Under this heading there appeared in THE LANCET of Jan. 9th a letter from "A. M. D." criticising the prevalent impression that the loss of life among soldiers in war time greatly exceeds that which is experienced by non-combatants in the civil population. Your correspondent quotes the statement of Mr. E. B. Phelps, editor of the *American Underwriter*, who in an essay on loss of life in time of war expresses the opinion that the soldier's dangers in war time, ominous though they be, "are really but little greater than are the civilian's dangers of dying before he has had time to set aside the necessary nest-egg for his dependents." This essay contains a table showing the average mortality among combatants in the principal wars of the last half century, and in relation thereto the average mortality prevailing in the entire population of the American United States in the year 1914.

After carefully reading this essay I would join issue with "A. M. D." in the inference which, without reference to the context, he draws from Mr. Phelps's figures. In all statistical investigations absolute

comparability of the data involved is an indispensable condition, but in the present instance this precaution appears to have been neglected. It is familiar knowledge that the army consists exclusively of picked men, chosen from their fellows after strict medical examination, the health and physique of the troops after enlistment having been raised as far as practicable by careful training as well as by suitable feeding and exercise and by hygienic environment. We cannot compare the vitality of such troops with that of the general community, which includes large proportions of paupers, criminals, and other undesirable units, as well as of invalids and lunatics whose vitality and power of resistance to disease are manifestly inferior. The common impression, which attributes exceptional loss of life to the forces engaged in modern warfare, is the right impression. "A. M. D." concludes by offering helpful counsel to the host of probable sufferers from the present war in the event of its long continuance. He emphasises the duty incumbent on every man, whether civilian or combatant, to make provision for his family against the possibility of his premature demise. In a campaign of the present dimensions serious casualties are inevitable; but of the privation and distress thereby caused neither the incidence nor the intensity can possibly be foreseen. The desirability of securing the needful protection by means of life assurance is one of the significant lessons of the existing European conflict.

I am, Sir, yours faithfully,

Jan. 18th, 1915. MEDICAL STATISTICIAN.

# Obituary.

## JOHN ROBINSON, L.R.C.P. EDIN., L.F.P. & S. GLASG.

THE recent death of Mr. John Robinson, of Runcorn, removes a distinct personality. He was greatly beloved and respected by those among whom he worked, and was typical of a class which would be styled old-fashioned and out of date by the present generation. Transfer Ian Maclaren's Dr. Maclure from the Highlands to Runcorn, and substitute the bargees of Mr. Jacobs for crofters, and the characters are identical. His manner of dress would have been eccentric if worn by another; winter and summer a short, thick, double-breasted pilot cloth coat, buttoned up to the chin, afforded no opportunity for the display of linen, for which John Robinson had no use. He wore no heels on his boots. His head was covered with a shaggy thick crop of iron-grey hair, and he was quite unconscious that his appearance differed from the man in the street.

Having served an apprenticeship before commencing his scientific studies, he believed that the practical experience and knowledge of human nature acquired during this period was of infinitely more value than the preliminary scientific studies of the medical student to-day. His day's work, year in and year out, was not interrupted by week-ends and holidays, for which he felt no need. Busy morning and evening with surgery work and plenty of it, with long rounds in the afternoons, Sundays and Bank Holidays not excepted, he was ready at any moment to tackle a case of difficult labour, to fight a pneumonia, or perform an operation for strangulated hernia, for his clients could not afford the luxury of a specialist and his work had to be done with the assistance of a brother practitioner and the district nurse. Instead of the appointments of an up-to-date surgical theatre, his operation room was often the bedroom in a cottage.

A correspondent writes: "He once showed me a knife carried among other miscellanies in his pocket with which he had done 20 hernias. I asked him how many of the patients had died; he retorted not more than the average of a city hospital." His recreation was gardening, and he regularly read his Greek Testament. Thus his life work was done day in and day out, assisting arrivals and easing departures, practising his profession as a vocation, not as a means of gaining wealth. He used his power to help and his skill to advise those among whom his life work lay. John Robinson would be more than content with the respect and affectionate memories of his friends, workers in humble spheres, rather than that of the so-called upper classes.

## HUGH WARNOCK, M.R.C.P. IREL., J.P.

Mr. Hugh Warnock, who died recently at his residence, Clogher, co. Tyrone, as the result of an attack of cerebral hæmorrhage, was a native of the Dromore district of co. Tyrone. For the past 38 years he practised in Clogher, where he was dispensary medical officer and medical officer of health. He was also medical attendant at the workhouse hospital for the past 13 years, and a magistrate for co. Tyrone. A skilful practitioner of medicine, a thorough man of business, and generally popular, Mr. Warnock will be very much missed.

## ETHEL FRANCES LAMPORT, M.D. BRUX., L.S.A.

WE regret to learn that Dr. Ethel Frances Lamport died very suddenly on Dec. 27th, 1914, whilst driving to church. Miss Lamport entered the London Hospital as a probationer in 1884, and after completing her training was made sister of one of Sir Frederick Treves's wards, a post which she held for several years. After leaving the London Hospital Miss Lamport took the diploma of sanitary inspector and then decided to study medicine, entering the London (Royal Free Hospital) School of Medicine for Women in 1891. On qualifying Dr. Lamport at once returned to the East-end of London and began to practise in Bow, where she worked unremittingly for over 11 years for the improvement of the physical and social conditions of the women and children who came under her care. She also held the post of public vaccinator in Millwall (Isle of Dogs) for 10 years. When failing health made it impossible for Dr. Lamport to continue her arduous life of work amongst the sick poor, she retired to Well Manor, near Long Sutton, Hampshire, where she quickly endeared herself to her neighbours by her genial manner and the kindly interest she took in them. Dr. Lamport will long be remembered in Bow and Poplar for her unselfish devotion to the sick poor in those districts.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—At a meeting of the Council of the College held on Jan. 14th the diploma of M.R.C.S. was conferred upon Mr. Stephen Abraham Liebson, of Guy's Hospital, and licences to practise dental surgery were granted to Mr Percy Gordon Barlow Griffin, of Liverpool University, and Mr. Harry Austin Hutson, of Middlesex and National Dental Hospitals, all of whom have complied with the regulations.

# THE BELGIAN DOCTORS' AND PHARMACISTS' RELIEF FUND.

THE subscriptions to the Fund during the week ending Jan. 19th have been good. They include, it will be seen, a cheque received through Mr. A. A. Tindall for £137 10s., being money mainly collected by Dr. H. Macnaughton-Jones, and acknowledged in the *Medical Press and Circular*. Dr. Macnaughton-Jones's endeavours on behalf of the Fund have been strenuous throughout, while he was one of the first supporters of the movement.

The support of the Liverpool Medical Institution, which was promised from the beginning, has been substantial. The subscriptions already received amount to £300, and it is hoped that, in reply to the appeal of the institution, a sum of money may be raised "worthy of the history and position of Liverpool as a great medical centre." Subscriptions should be sent at an early date to Dr. T. R. Bradshaw, honorary treasurer, at the Liverpool Medical Institution. Professor Jacobs has accepted an invitation from the council of the institution to address the members of the medical profession on the circumstances and needs of his Belgian *confrères* at the Medical Institution on Thursday next, Jan. 28th, at 8.45 P.M. Cards of invitation to medical practitioners who are not members of the body will be supplied on application.

The local committee in Birmingham has already made a handsome collection, £148 having been sent this week to Dr. Des Vœux.

International interest in the Fund has been stirred up, and will not be lessened by the following episode. The Belgian Society of Medicine in London at a meeting held on Monday last passed a vote of sympathy with the Italian sufferers in the recent terrible earthquake, and requested that the money so far collected in Italy for the needs of Belgian doctors and pharmacists should be employed in alleviating the distress among the Italians.

The appeal by Professor Jacobs on behalf of the medical profession in Belgium is sympathetically discussed in *Ugeskrift for Laeger* for December 17th. This Journal is the official organ of the Danish Medical Association, and it announces that the secretary of the association will receive contributions and forward them to the committee in England.

The subscriptions to the British Fund which have been received up to Tuesday evening last by Dr. Des Vœux, in addition to £3120 already acknowledged, are as follows:—

| | £ | s. | d. |
|---|---|---|---|
| Brussels Medical Graduates' Association (per Dr. Major Greenwood, Treasurer) | 112 | 2 | 6 |
| Dr. Oswald H. Isard | 1 | 1 | 0 |
| Reading Division, B.M.A. (per Dr. Gordon Lambert, Hon. Sec.)— | | | |
| Dr. F. W. Standfield | 1 | 1 | 0 |
| Dr. T. H. Gandy | 1 | 0 | 0 |
| Dr. Walter Dickson | 2 | 2 | 0 |
| Woolwich Division, B.M.A. (per Dr. B. W. Lacey, Hon. Sec.)— | | | |
| Dr. Sidney Davies | 1 | 1 | 0 |
| Dr. James S. Robertson | 1 | 1 | 0 |
| The Misses Reynolds | 1 | 1 | 0 |
| Morpeth Division, B.M.A. (per Dr. Frank Beaton, Hon. Sec.)— | | | |
| Dr. Hugh Dickie | 2 | 2 | 0 |
| Dr. A. Smail | 2 | 2 | 0 |
| Dr. Frank Beaton | 1 | 1 | 0 |
| Dr. M. Maclean | 0 | 10 | 6 |
| Dr. H. S. Brown | 0 | 10 | 6 |
| Dr. P. Henderson | 1 | 0 | 0 |
| Mr. R. Carnelley Walsham | 2 | 2 | 0 |
| Mr. A. John | 3 | 0 | 0 |
| Mr. W. Austin Attree | 0 | 5 | 0 |
| Birkenhead Medical Society (per Dr. G. V. Fletcher, Hon. Treas.) | 15 | 15 | 0 |
| Mr. C. B. Thacker | 1 | 1 | 0 |
| Huddersfield and District Chemists' Association (per Mr. J. F. Russell, President) | 1 | 12 | 6 |
| The Misses Buchanan and Heywood | 0 | 10 | 6 |
| Mr. P. Bolton | 1 | 1 | 0 |
| Mr. Samuel Kay | 10 | 0 | 0 |
| Mr. F. J. Mackinlay | 1 | 1 | 0 |
| Mr. Harold F. Mole | 1 | 1 | 0 |
| Mr. J. H. Eldridge | 1 | 0 | 0 |
| Shropshire and Mid-Wales Branch B.M.A. (per Dr. A. E. Mackenzie, Hon. Sec.), third donation— | | | |
| Dr. T. D. Kirk | 1 | 1 | 0 |
| Dr. W. H. Lewis | 1 | 1 | 0 |
| Mr. W. L. Cunningham | 1 | 1 | 0 |
| Mr. Percy G. Hicks | 2 | 2 | 0 |
| Southgate Ward, North Middlesex Division B.M.A. (per Dr. M. Stewart Smith, Hon. Sec.)— | | | |
| Dr. Gilfillan | 1 | 1 | 0 |
| Dr. R. S Dickson | 0 | 10 | 6 |
| Dr. A. S. Ransome | 1 | 1 | 0 |
| Dr. W. N. Barker | 0 | 10 | 6 |
| Dr. D. Fairweather | 0 | 10 | 6 |
| Dr. A. Armstrong | 1 | 1 | 0 |
| Dr. A. D. Macnair | 1 | 1 | 0 |
| Dr. R. T. Vivian | 1 | 1 | 0 |
| Dr. H. S. Vivian | 0 | 10 | 6 |
| Lieutenant C. St. A. Vivian, R.A.M.C. | 0 | 10 | 6 |
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The third list of subscribers in Ireland, published in THE LANCET last week, brought the amount of the Irish Fund up to £816.

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## THE APPEAL FOR SURGICAL INSTRUMENTS.

The Master of the Society of Apothecaries acknowledges with thanks the receipt of surgical instruments kindly contributed by the following gentlemen since the publication of the last list:—

Dr. F. R. B. Atkinson, Warwick-street, London, S.W.; Mr. John W. Orviss, Jersey; Dr. Blair, Jedburgh; Dr. Selwyn Edwards, West Bromwich; Dr. Basil Housman, Tardebigge, near Bromsgrove; Dr. R. Anderson, Erdington, Birmingham; Dr. S. Bodger, Studley, Warwickshire; Dr E. Cautley, Park-street, Park-lane, London, W.; Dr. W. H Lewis, Llansantffraid, Mon.

**Subscriptions to the Fund should be made payable to the Belgian Doctors' and Pharmacists Relief Fund, crossed Lloyds Bank, Limited, and sent to Dr. H. A. Des Vœux, 14, Buckingham-gate, London, S.W.**

# The War.

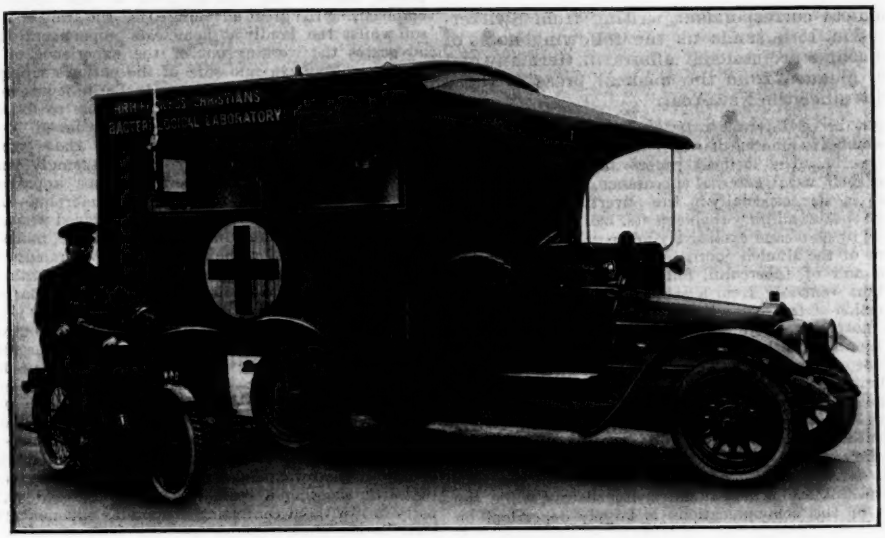
## THE PRINCESS CHRISTIAN MOTOR LABORATORY.

THROUGH the generosity of an anonymous donor a fully equipped motor bacteriological laboratory has been placed this week at the disposal of the War Office for service at the front. The car, which will be known as the "Princess Christian Motor Laboratory," consists of a large van-shaped body divided into two compartments, with driver's seat in front, on a 20–30 h.p. Clement-Talbot chassis. The outside body work of the coach was built by Messrs. Peters and Son, of Acton, and the internal construction, fittings, and scientific equipment have been devised and carried out by Messrs. Baird and Tatlock, Limited, under the supervision of Mr. Douglas Baird.

The main laboratory—6 ft. 6 in. long by 6 ft. wide—is entered through a door at the back, and is fully equipped with glass-covered bench top, sink, centrifuge, balances, microscope, bookshelf, water cistern, and so on, with shelves, drawers, racks, and cupboards containing reagents, microscopical stains, and all the necessary apparatus for bacteriological and cytological work. The smaller compartment—2 ft. 10 in. in depth by 6 ft. wide — is separated from the laboratory by sliding doors, and contains two incubators, hot air and steam sterilisers, still and condenser, autoclave and water bath, together with a fume cupboard with electric fan beneath to drive out impure air and gases. The necessary heat for these appliances is provided by Primus burners and intensive oil lamps, while a petrol incandescent lamp supplies enough heat to warm the laboratory in winter. Electric current for general and microscopical illumination is obtained by a dynamo belt-driven from the engine. The height of the laboratory at the centre is 6 ft. 6 in., and there is enough floor space in the middle of it to give impromptu sleeping accommodation for the bacteriologist if need arises. The driver's platform can be closed in by screens, and a trap lets down above the seat, thus furnishing two bunks one above the other in which the driver and laboratory assistant can sleep. The total weight of the car, with driver, is 3 tons 8 cwt., and the cost has been upwards of £2000.

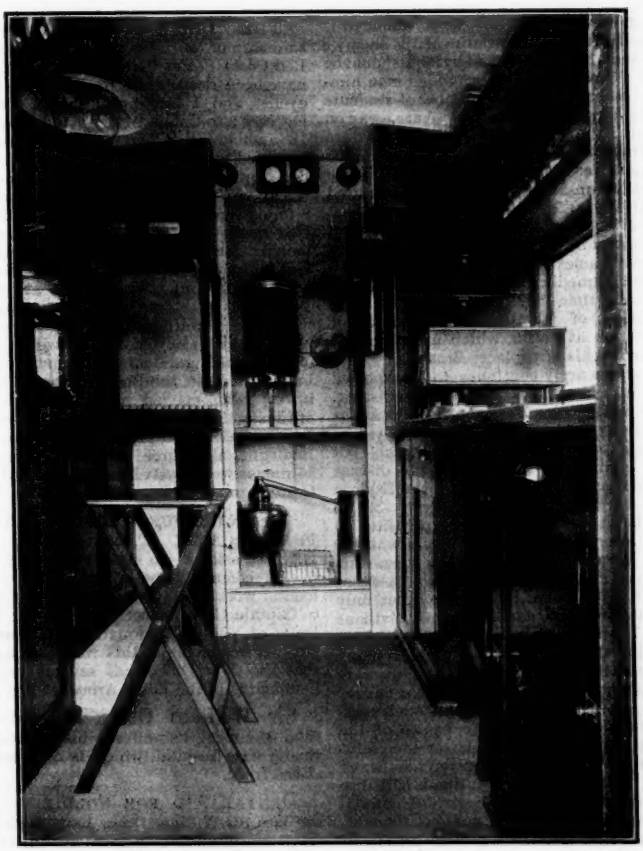
The manner in which this travelling clinical laboratory has been designed and fitted up, so as to give the fullest working outfit in the smallest space consistent with freedom of movement, is deserving of high praise. Much ingenuity has been

FIG. 1.



General view of field motor laboratory and side-car.

FIG. 2.



Interior view of field motor laboratory.

spent in providing compact storage space for breakable glass apparatus and delicate instruments without risk of damage from jolts and bumps when the car is on rough roads. The investigator indeed has everything he is likely to want for ordinary purposes almost immediately under his hands. Three previous laboratory cars, which have been equipped by Messrs. Baird and Tatlock for the War Office during the progress of the war, are already in use with the Expeditionary Force, and various improvements in design and finish, based on this experience, have been embodied in the Princess Christian Motor Laboratory.

In association with the laboratory car is a motor cycle with side-car attachment, which provides a mobile means of fetching pathological fluids and specimens from points nearer the firing line than the car itself would ordinarily reach. Captain A. C. H. Gray, assistant professor of pathology at the Royal Army Medical College, is in charge of the laboratory, which has already left for an oversea base. On Monday last Captain Gray was received by Princess Christian at Schomberg House, and the laboratory car was inspected by Princess Victoria of Schleswig-Holstein. Our illustrations give an outside view of the laboratory car and side-car, and an interior view of the laboratory taken from the door at the back of the car.

## GERMANY AND AUSTRIA IN WAR TIME.

A medical correspondent, writing from Switzerland on Jan. 15th, sends us the following notes of scientific and professional affairs in Germany and Austria, gleaned from the medical press of those countries since the New Year.

It might be of interest to try to form some idea of the way in which five months of war have affected the German medical world. The medical papers all appear regularly and have their usual external appearance, although slightly decreased in size, especially in the advertisement columns. Most have special military supplements, but the text of the journals is by no means exclusively military, and turning to the pages of the Munich journal one reads of complement reactions and of tuberculin, followed by a case of suture of the right ventricle from a sabre cut during a quarrel, an illustration of the seamy side of militarism. The British journals naturally figure no longer in the summaries of current literature, although a Vienna paper continues to use American sources freely as well as the journal of the Royal Army Medical Corps. It is unfortunate that, although prominence was given to the complaint of the Hamburg doctors against the conditions supposed to prevail among the interned Germans in England, no notice has been taken of the effective replies to this published in THE LANCET and *British Medical Journal*. The medical societies continue to meet at the principal university centres, while the character of the communications is largely dependent on proximity to the fighting line. A reunion at Lille (which is explained by the papers to be in France!) naturally discusses bullet and other wounds. Explosive bullets still figure *ad nauseam* and it is refreshing to meet the following paragraph: "The doctor can often help to set the soldier's mind at rest by correcting his frequently erroneous opinion that he has been wounded by an explosive bullet. To be wounded is hard enough, but the feeling of being the victim of the enemy's baseness is harder still, and when not justified by facts should be removed, if possible, in the interest of the wounded man himself." At the universities nearly the usual number of students have been enrolled, but a large proportion of these are away on war leave. Here, again, the towns nearest the front are most depleted. At Strasburg, for instance, 535 out of 1155 students are at the front; at Bonn 1117 out of 4518. The new university of Frankfurt on-Main, which was inaugurated by an Order in Council signed by the Kaiser on June 10th, 1914, was opened without ceremony in October, and although ten of the new professors were at once called to the front, the well-known names of Quincke and v. Noorden appear as professors, and 80 medical students were enrolled. Amid the shout of arms time has been found to celebrate the 400th birthday of Vesalius, the founder of anatomy, with an exhibition at Berlin, which might indeed now have been conducted at his birthplace, Brussels.

The health of the German army continues to be reported as excellent, but certain grave risks are not far distant. Typhus has broken out among the Russian prisoners at the camp at Cottbus with several hundred cases, prevented so far by rigid isolation from spreading outside the camp, but Professor Jochmann, of Berlin, fell a victim to the disease whilst conducting a Government inspection. On the Eastern frontier the soldiers are recommended to carry 30 to 50 grammes of naphthalin to keep off body parasites in order to avoid possible infection, but it is doubtful whether the supply of this drug is sufficient to make the suggestion practicable. In the last report there were 166 cases of cholera among the Russian prisoners in Germany, but only 1 Englishman, 10 German soldiers, and 2 German civilians have been infected. In Austria the disease appears to be less prevalent, although during three months in a single Vienna hospital 2800 stool examinations were made, and vibrios were found in 250 persons. Attention is called to the great danger of cholera carriers—i.e., cases coming from infected areas with only slight symptoms. In general the health of the prisoners is also reported to be good; but bitter complaint is made of the difficulty of sparing food for the number of these, which is stated to be 600,000, and attention is called to the urgent need of sending the unfit ones home. The food-supply in general continues to give rise to anxious thought. A medical writer discusses at length the practical aspects of the question, remarking what a large part the food-supply plays in the effectiveness of the army, regretting that the potato harvest was not so good as was expected, and emphasising the great advantage that the army is on enemy's soil whilst the family at home eats proportionally less. He advocates the working out of the experience of both the productive and hygienic side of the nation's supply and the enforcing its observance by law. In Berlin it has so far been impossible to persuade either the bakers to bake or the population to eat, the prescribed bread containing 10 per cent. of rye flour, and the prospect of a shortage in wheat-supply is increasingly imminent. The lack of drugs in Germany has apparently not been severely felt so far, although morphia and other opium alkaloids have doubtless been replaced where possible by synthetic remedies in ordinary practice, morphia itself being left largely for the relief of the wounded. Stress is laid on lack of drugs in Russia, where there is said to be no manufacture of pure chloroform for anæsthetic purposes, nor of iodine and its derivatives; but an expedition is stated to have been sent to the White Sea to procure a stock of iodine from the seaweed there. Another medical writer states with apparent seriousness: "We must free ourselves from our exaggerated German reserve, solicitude, and conscientiousness even bordering on pedantry" in order to ensure rightful demands. The intellectual ability of the German doctor is further illustrated by a serious discussion of high medico-legal authorities as to the ownership of bullets extracted by operation from wounded men. On the one side it is argued that after shooting a bullet the enemy surrenders his property in it without conferring it upon his opponent, in whose body it therefore remains as only lost, as it is not an integral part of his tissue. But in no case can the doctor take possession of it without permission. Another grave authority considers that the bullet still remains the property of the hostile side.

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THE BRITISH RED CROSS SOCIETY.—In its summary of work for the week ending Jan. 16th the British Red Cross Society states that during the past week there have been despatched to Boulogne 6 ambulances, 1 motor cyclist, and 1 lorry; to Dunkirk 4 ambulances and 2 touring cars; to Calais 1 lorry; and to various places in England 12 ambulances. The number of auxiliary home hospitals accepted by the War Office up to Jan. 16th is 686, containing beds for 19,159, including 377 beds accepted during the past week. At present at Netley Hospital there are 145 British, 8 foreign invalids, 6 Belgians, and 240 Indians in hospital. One death has occurred among the Indians from pneumonia. The new hospital for nurses is being erected, and the buildings of the Irish Hospital are progressing and will be brought into use at the end of the month. 1490 cases of stores were sent abroad during the week, of which 1259 were despatched to Serbia and Montenegro. Fifty hospitals in this country were supplied with 252 cases of stores and garments. The number of patients who have been treated in the British Hospital during the eight weeks it has been opened now total 873—namely, British, 50 officers and 816 of other ranks; and seven German prisoners. Two orderlies left for Serbia on the 16th, and one clerk for Boulogne, also three cooks for Boulogne. During the week 24 nurses were posted for home service and one despatched for foreign service.

VACANCIES FOR MEDICAL OFFICERS.—Major C. M. Fegen, R.A.M.C. (T.F.), divisional sanitary officer of Reigate, asks us to state that medical officers are needed in his command, both for field ambulances and for regimental work. Applications for commissions should be made to Captain Cave, Officer Commanding Depôt (Medical Units), Duke of York's Headquarters, Chelsea, London, S.W.—In our Service column this week an announcement is made that the War Office has several vacancies for temporary lieutenants in the Royal Army Medical Corps.

Sir William Osler, according to a telegram from Montreal, has offered his services to the McGill University base hospital, which is now being organised for duty at the front.

DENTAL AID FOR SOLDIERS.—The trustees of the late Sir William Dunn have made a grant of £1000 to Guy's Hospital, to be applied for the treatment of the teeth of soldiers now serving with the British forces and of men

desirous of enlisting as soon as their teeth are in order. The Soldiers' Dental Aid Fund, with offices at 36, Liecester-square, London, W.C., has been established for a similar purpose, and has the support of the Presidents of the Royal Dental and National Dental Hospitals.

4TH LONDON (CITY OF LONDON) GENERAL HOSPITAL.—This Territorial General Hospital, unlike its fellows in the London District, occupies buildings expressly designed and constructed for use as a hospital. The original plan, before war broke out, was that the site of the hospital on mobilisation should be at St. Paul's School, but this idea was abandoned early in August in favour of transforming the greater part of the new King's College Hospital at Denmark Hill into a military hospital. The whole institution in its double capacity as a military and civil hospital has now been in full working order since within a week of the order for mobilisation, the military side of it being under the able direction of Lieutenant-Colonel Nestor Tirard, the Commandant. Although the entire hospital building, as designed, has not yet been completed, the hospital authorities have been able to place at the disposal of the War Office sufficient accommodation to provide a fully equipped military hospital of 520 beds, and to these have been added 114 additional beds as the need for expansion arose. A very large number of military patients are also received under the administrative control of the 4th London General Hospital authorities in five other London hospitals in the east, the north, and the west. At King's College Hospital the casualty block and six wards on the first floor remain for civilian use and for the medical school. The rest of the buildings are military, and the full use of the whole equipment of the hospital is at the disposal of the military medical authorities, the War Office paying for the upkeep of those portions of the hospital which have been handed over to them. The staff of the 4th London General Hospital is drawn from the medical and surgical staffs of King's College Hospital, St. George's Hospital, Charing Cross Hospital, and Westminster Hospital. Colonel Tirard is assisted in his administrative duties by Major G. N. Biggs and the Quartermaster, Captain J. Boxall. Of the *à la suite* staff of medical officers available for service on mobilisation the following have already been called up for duty: Lieutenant-Colonels Norman Dalton and Stanley Boyd; Majors A. H. Tubby, F. W. Mott, W. G. Spencer, A. Carless, W. Aldren Turner, and J. Galloway; Captains A. M. Gossage, H. F. Waterhouse, Cyril Ogle, Arthur Latham, William Turner, William Hunter, W. C. Bosanquet, A. H. Evans, J. S. Collier, H. S. Pendlebury, J. Purves Stewart, E. R. Carling, T. Crisp English, R. O. Sibley, W. D'Este Emery, and R. Knox. The principal wards of King's College Hospital, which are built on the pavilion system, are admirably suited for the use of military patients, and the modern construction and equipment of the new hospital are of the greatest possible advantage to all concerned.

BRIGHTON MILITARY HOSPITALS: A TRANSPORT RECORD.—A local correspondent writes: "Despite the short notice that has on more than one occasion been given of the arrival of wounded at Brighton, the medical transport arrangements have been so well carried out that the speed with which the various Red Cross trains have been cleared has often been commented upon. These arrangements have all been carefully planned and carried out by Major W. H. Brailey, the medical transport officer, who was congratulated by the King on the occasion of his recent visit with the Queen. His Majesty told Major Brailey that Brighton holds the record for the whole country, having secured it by transporting the first batch of wounded Indians, 344 in number, from the train to the hospitals in just over an hour. The performance was the more remarkable from the fact that the Indians carry with them much more baggage than the British. Since the date of the King's visit a trainload of British wounded has arrived, and 99 cases, including 40 stretcher cases, were removed and rehoused in various parts of Brighton and Hove in 40 minutes, the Army Service Corps ambulances being supplemented by several of the Royal Army Medical Corps and that of the Brighton Borough Police and private motor cars. And a lot more work is in store for the medical transport workers at Brighton. The workhouse and infirmary buildings, which have been taken over by the War Office, were evacuated of their usual inmates on Jan. 16th, when the keys were handed over to the Government representatives, and active preparations are being made for the reception of wounded Indian soldiers, elaborate alterations being necessary in both the sanitary and cooking arrangements. The institution is now officially known as Kitchener's Hospital, and on Jan. 12th there arrived from Bombay the personnel of five field hospitals and two hospital ships, comprising 25 English officers, 26 Indian officers, 41 warrant officers (Indians), and 544 men (Indian soldiers), the latter including attendants, cooks, &c., for both Mohammedan and Hindu. The occupation of this hospital by wounded Indians is not expected for some time."

BRITISH HOSPITALS FOR THE BALKANS.—The British Red Cross is sending out two hospital units, one to Serbia and one to Montenegro. The unit for Montenegro consists of Dr. F. G. Clemow, C.M.G., in charge, with Dr. Virtue Tebbs and Dr. Burnham as surgeons, two trained nurses, two Voluntary Aid Detachment ladies, and four male orderlies. The unit will proceed first to Malta, whence it will make every endeavour to reach Montenegro. A large quantity of medical stores is being taken, and, owing to the conditions prevailing in Montenegro, the unit is compelled to carry with it food, &c., for six months, so as to be independent of local supplies. A hospital unit for Serbia is also leaving London under the superintendence of Mr. James Berry, senior surgeon to the Royal Free Hospital. The unit has the direct authority of the Serbian Government, and the British Admiralty has consented to transport it free of cost. A full medical and surgical outfit will be carried, while clothing and other comforts for the people of Serbia will also be taken, so far as funds permit. The medical staff consists of Mr. James Berry, senior surgeon and medical superintendent; Mr. Laurence E. Panting, surgeon; Mrs. F. May Dickinson Berry, physician and anæsthetist; Dr. Ernest V. Williams, radiographer; Dr. Dorothy Chick, house surgeon; and Miss K. M. Parkinson, dresser; together with 8 nurses under Miss Irvine-Robertson, 5 lady orderlies, 4 orderlies, and a cook.

THE FRENCH AUTOMOBILE AMBULANCE NO. 1.—Our Paris Correspondent writes that on Jan. 13th Dr. Hallopeau laid before the Société de Chirurgie statistics of the results obtained with automobile ambulance No. 1, which was supervised by himself in conjunction with a surgical colleague of the Paris hospitals whose idea it was, and who acted as médecin-chef of this new sanitary formation. The object was to provide a surgical establishment in which operations could be done with as much certainty of surgical technique as in the most modern hospitals, and as near the firing line as possible. This was accomplished in the most scientific yet simple manner imaginable. The entire formation consists of three light wagons and an engine. This last contains the most important part of the ambulance, the steam generator, which assures at any hour of the day or night an adequate supply of perfectly sterilised water, soap, brushes, instruments, and dressings. The same steam apparatus heats the operating tent to the desired temperature. With an outside temperature of —21° F. a constant inside temperature of 75° has been maintained. The traction engine can make its way anywhere, so that the sanitary formation can be established at the chosen spot, and it can also place itself under cover with all possible rapidity. The wagons contain the complete material necessary for a hospital of 120 beds for operation cases, established at some fixed spot, such as a chateau, church, or farmhouse, connected by an awning passage with the operating tent; also the dispensary, reserve of dressings, the kitchen, and all the other accessory services. The pitching of such an ambulance, including the hospital and operating tent, takes only a few hours, and it can be struck with equal rapidity. The establishment contains also six light motor vehicles, heated to 75° and capable of containing four stretchers for the wounded or operation cases. These motor cars link up the ambulance proper with neighbouring dressing stations, which send to it only carefully selected cases of those seriously wounded. To them also is reserved the rôle of evacuating the operation cases should a retreat render it necessary. Ninety-two persons were operated on by this ambulance during its recent campaign without an amputation or a case of tetanus. One patient was brought in with gaseous gangrene and was cured. Six perforating wounds of

the abdomen have been operated upon, of which three were cured. The surgeons have operated in it for ten hours in succession.

SOLDIERS' DREAMS.—A correspondent in charge of an ambulance on the Continent, when his time was not fully occupied by surgical emergencies, has had the curiosity to inquire into the psychical consequences of the emotions inseparable from active fighting as shown in dreams and other subconscious manifestations. Neurotic subjects, as one would expect, he says, react in a most striking fashion to the shock of explosions in their immediate vicinity. Some develop a tendency to somnambulism and are met wandering about the premises with terror and anxiety depicted on their faces in anxious search of their regiments. Short of somnambulism the dread of losing contact with their fellows seems to be felt with extreme frequency, and horror of isolation constitutes the commonest nightmare of men in the first fighting line. They dream that they are wandering through endless trenches as complicated as an artificial maze, or are picking their way through lonesome forests whence all but they have fled. The slightest noise during sleep calls up visions of exploding shells or the tramp of armed men, throwing them into a frenzy of shouting terror, to the indignation of their resting fellows. Oddly enough, these men are as brave as the rest in face of real danger. Another common night terror is the dream of a sudden call to arms and the inability to find some indispensable article of attire or combat, a conception productive of intense mental agony. Live shells naturally occupy a large share of subconscious attention, and an exasperating nightmare is the discovery in one's bed of a shell ready and willing to burst, associated with the usual nightmare incapacity to execute the necessary movements to get rid of it. Several men have had dreams centring round the inability to withdraw the bayonet from the enemy's body when urgently required for self-defence. Numerous instances of "traumatic hysteria" are met with in which men, suddenly roused from deep sleep by explosions, develop the characteristic paralyses and disturbances of sensation. In one case there was marked limitation of the field of vision and inability to connect letters into words; the man could read the letters, but could not pronounce the word when spelled nor write the word when pronounced. Insomnia and more or less troublesome restlessness are also common consequences of the strain on the nervous system of actual warfare.

ROYAL COLLEGE OF SURGEONS IN IRELAND AND THE WAR.—The President, Vice-President, and Council of the Royal College of Surgeons in Ireland have decided to place in the College a permanent record of the names of all the students, Licentiates, and Fellows of the College who are at present serving with His Majesty's Navy and Expeditionary Forces, and further to erect a suitable memorial to all such as fall in the war. Relatives and friends are invited to communicate the names of such students, Licentiates, and Fellows to the Registrar of the College, Dublin.

IRISH MEDICAL MEN AND THE TERRITORIAL FORCES.—Dr. J. C. McWalter, governor of the Apothecaries' Hall of Ireland, writes: "May I appeal through your pages to the army authorities to give Irish doctors the same facilities for serving their country as are enjoyed by our British brethren? In Great Britain a very large proportion of practitioners belong to the Territorial Forces. It may not be possible for them to go to the front, but they are doing active service, and if an emergency occurred would doubtless be ready to go where wanted. In Ireland we have no Territorial Forces, and though a very large number of our younger men have volunteered and a great many are in the Officers' Training Corps, there appears to be no opportunity for medical men above the age of 45 of joining any branch of the Army Medical Service except in a few isolated instances."

BRITISH PRISONERS IN GERMANY.—A correspondent in Switzerland writes:—"An interesting report on the condition of the French and British prisoners in the concentration camps of Germany has just been presented to the International Committee of the Red Cross Society at Geneva by Dr. Ferrière and M. Gustave Ador. The two Swiss delegates spent a considerable time in Germany, where the authorities apparently did their best to make their task of investigation both pleasant and easy. The report lays emphasis on the fact that the enforced confinement does not seem to be having any ill-effects upon the health of the prisoners. The moral sufferings which the régime of complete isolation occasions the officers are, it is pointed out, considerable. The inaction which now characterises their lives—as contrasted with the strenuous vivid life on the fields of battle—also weighs heavily upon them. They are allowed no newspapers, very few books, limited and very colourless correspondence. From the point of view of sanitation and organisation it is stated the great concentration camps in the neighbourhood of Berlin are entirely admirable. The wooden dwelling houses are well built, are provided with double walls, and are comfortably heated. Long corridors suitable for exercise divide the rows of dwellings, and in the centre of the camps a canteen, where cigars, warm clothing, and food and delicacies were sold, was generally found. The delegates regret that unfounded reports, based probably upon individual cases which had no general significance, in regard to the concentration camps in Germany have been given publicity. The material conditions of captivity, their experience indicated, are satisfactory. The ordinary diet of the prisoners is that of the German soldiers."

Count Lalaing, the Belgian Minister in London, has sent a letter to the Vice-Chancellor of the University of Cambridge expressing grateful appreciation to the Senate of the University for their generous hospitality to professors from the Universities of Louvain, Liége, and Ghent, and to a number of students unfitted for military service with the Belgian army.

# Medical News.

ROYAL COLLEGES OF PHYSICIANS OF LONDON AND SURGEONS OF ENGLAND.—At the quarterly examination in Practical Pharmacy held on Jan. 14th the following candidates were approved:—

Willoughby Agar, B.A. Oxon., Oxford and Birmingham Universities; Philip Ardern Ashcroft, Manchester University; Charles Milwyn Burrell, B.A. Oxon., Oxford University and London Hospital; William John Dearden, Manchester University; Herman Gerald Dresing, Guy's Hospital; Donald Charles Farquharson, St. Mary's Hospital; William Vincent Gabe, Middlesex Hospital and private study; Sures Chandra Ghose, St. Mary's Hospital; Geoffrey Dowson Gripper, Guy's Hospital; Denis Paul Guilfoyle, St. Bartholomew's Hospital; Carl Gustave Waldemar Hahr, St. George's Hospital; Russell Walbancke Hodgson-Jones, Manchester University; Lancelot Horsley, Guy's Hospital; Harold Leslie Hughes, St. George's Hospital; John Stuart Lewis, St. Mary's Hospital; Eric Spanton Mawe, B.A. Cantab., Cambridge University and St. Bartholomew's Hospital; George Stanley Mitchell, King's College and Westminster Hospital; Ismail Mortada, B.A. Cantab., Cambridge University and University College Hospital; Charles Cyril Okell, B.A. Cantab., Cambridge University and St. Bartholomew's Hospital; Hoel Parry Price, Guy's Hospital; Thomas Lord Price, B.A. Oxon., Oxford University and St. Thomas's Hospital; Edmund Douglas Richardson, Charing Cross Hospital; Edgar Stanley Rowbotham, Charing Cross Hospital and King's College; Everard William Lewen Sharp, London Hospital; Edith Grace Sherwood, Royal Free Hospital; Francis Henry Smith, M.A. Cantab., L.D.S. Eng., Cambridge University and St. George's Hospital, and Myles Denison Boswell Tonks, London Hospital.

EAST SUSSEX INSURANCE COMMITTEE.—At a meeting of the East Sussex Insurance Committee protest was raised by medical men present at the delay taking place in the making of payments to practitioners on the panel, final credits for 1913, as well as provisional credits for 1914, being still unsettled. The Commissioners had issued a circular to medical men intimating that the Insurance Committee would make no further advance until the practitioner in question had furnished the required records, and the making of proper returns had been recently rendered in many cases impossible owing to the war and the loss of cards in transmission. A resolution passed by the Medical Benefit Subcommittee provided for the drawing and signing of cheques by the Committee after examination and approval of the amounts payable, but recognised the intervention of the Commissioners by providing that his cheque should not be sent to a practitioner until the Commissioners notified the Committee that they had received the lower halves of his record cards from him.

The resolution also provided for the sending of a circular to practitioners explaining and deprecating the delay thus arising in remitting payments, and urging that an intimation of the regret of the Committee at their inability to make prompter payment should be conveyed to the Commissioners. The delay was denounced in strong terms in the course of the discussion and in connexion with the adoption of the minutes, and reference was also made to another matter in which the medical profession was hardly treated. This arose out of a letter from the Commissioners stating that the concessions made to druggists with regard to the increased cost of drugs through the war were not applicable to practitioners on the panel who had arranged to dispense medicines to their insured patients on a capitation basis.

MEDICAL MAGISTRATE.—Dr. Frederick Wolverson has been appointed a justice of the peace for the county of Stafford.

ANTHRAX IN ABERDEEN.—A case of anthrax has occurred in Aberdeen, the victim being a woman who was engaged in mending bone-meal bags. She returned from her work an hour earlier than usual on Dec. 3rd last, complaining of feeling unwell. The glands of her neck were very much swollen. On the next day she went to her work, but returned much worse. A medical man was sent for, and her condition gradually became worse, death supervening on Dec. 8th. During the inquiry under the Fatal Accidents Inquiry Act, the medical practitioner who attended her said that her mouth was in a septic condition and it was possible the germs might have found entrance by the septic gums, or the disease might have been contracted through rubbing the bone dust into a scratch or broken pimple. The jury found that the woman had died from anthrax contracted accidentally.

DONATIONS AND BEQUESTS.—Subject to the life interest of his wife, the late Mr. Thomas S. D. Wallace, of Brighton, left by will £1000 each to the London Hospital, Guy's Hospital, the Homœopathic Hospital, the British Home for Incurables at Streatham, and the Cancer Hospital at Fulham.—The Royal Dental Hospital, Leicester-square, has received a donation of £100 from the Worshipful Company of Goldsmiths.—By the will of the late Mr. H. Mitchell, of Birmingham, the testator left £8700 upon trust to apply the income for the benefit of the Birmingham Athletic Club, for the provision of annual lectures on health and hygiene during the 21 years following his decease, and subject thereto this sum is to be divided as to one-third to the Queen's Hospital, Birmingham, one-fourth to the Birmingham and Midland Eye Hospital, one-fourth to the Birmingham and Midland Skin and Urinary Hospital, and one-sixth to the Birmingham Athletic Institution.—Among recent donations to the fund for the extension of the London (Royal Free Hospital) School of Medicine for Women are £262 10*s.* from the Mercers' Company and £50 from the Goldsmiths' Company.

INFECTIOUS DISEASE IN BELFAST.—At the January monthly meeting of the city corporation of Belfast a long discussion took place on the prevalence of zymotic disease in Belfast, with particular reference to the great scarlet fever epidemic. As a justification of the large expenditure on public health, the chairman of the Public Health Committee said that the death-rate during the past 20 years had fallen from 23·3 to 18·2 in 1913, though in 1914 it was 18·7. During 1914 there were 1090 deaths from zymotic disease, a rate of 2·7 per 1000; of these 197 were due to measles, 203 to whooping-cough, and 455 to diarrhœa. In 1914 there were 815 deaths from pulmonary tuberculosis, while in 1913 there were 844, the total death-rate from this disease being 2·0, while in 1913 it was 2·1, which was a slight change for the better. In the very full discussion which followed attention was drawn to the want of personal interest taken in Purdysburn Municipal Fever Hospital by the members of the Public Health Committee, to the large expense of that institution, with alleged inadequate results to the public health, to the large number of its staff and the absence of a resident medical superintendent, to the existence of return cases, and to the presence of cross-infection. In the course of debate it was alleged that the medical officer of health did not get a free hand or insist on his advice being acted upon. The necessity of weekly cleansing of every national school in the city was considered. A medical councillor having pointed out that there was a diminution in the number of scarlet fever cases even before the closing of the schools, added that it would be interesting to find how far closing of the schools contributed to the diminution of the scarlet fever epidemic. It is a healthy fact to find the public health of Belfast being discussed by its civic fathers; it means that the public of Belfast are showing clearly that they are far from being satisfied with the present condition of the health of the city.

MEDICAL BARRISTER.—Dr. W. E. St. Lawrence Finny, J.P., who is a member of the Inner Temple, has passed the Bar Final Examination, qualifying for admission as a barrister-at-law.

LEICESTER ROYAL INFIRMARY.—At a quarterly meeting of the governors and subscribers held on Wednesday last it was decided to build and equip a new and complete pathological and clinical laboratory and post-mortem department at an approximate cost of £3500.

ROYAL METEOROLOGICAL SOCIETY.—The annual general meeting of this society was held on Wednesday evening last at the Surveyors' Institution, Great George-street, Westminster, when Captain H. G. Lyons, F.R.S., was elected president and Mr. F. Campbell Bayard and Commander W. F. Caborne, C.B., secretaries for the ensuing year. The new members of council are Mr. J. S. Dines, Mr. A. P. Jenkin, and Sir J. W. Moore, M.D.

HUNTERIAN SOCIETY.—On Wednesday, Jan. 27th, a visit will be made by the members to the Pathological Department of St. Bartholomew's Hospital, where tea will be served at 4 P.M. in the Kanthack Library. The following demonstrations will be given: Dr. Mervyn H. Gordon, The Technique of Wassermann's Reaction; Dr. Mackenzie Wallace, (1) The Estimation of Blood Sugar in Diabetes; and (2) Abderhalden's Serum Diagnosis of Pregnancy; Dr. A. E. Stansfeld, The Projectoscope as a Method of Showing Pathological Specimens; Dr. J. W. Trevan, Recent Additions to the Hospital Museum; Dr. G. Graham, The Estimation of the Alveolar $CO_2$; Dr. Langdon Brown and Dr. A. Feiling, A Tumour of the Mid-brain.

Mr. William Hichens died at his residence in Redruth, Cornwall, on Jan. 15th, in his fifty-first year. He was a son of the late Dr. J. Harvey Hichens, and was educated at Epsom College and the London Hospital Medical School. He held several appointments at Redruth, being surgeon to the West Cornwall Miners' Hospital and Hospital for Women, and was also medical officer for the workhouse infirmary and public vaccinator. He was greatly interested in football, and was for 15 years president of the Cornwall Rugby Union. When at the London Hospital he was captain of the cricket and football teams. He was extremely popular in Redruth and the district, and much sympathy is felt there for his widow and two children.

THE CASE OF MR. NATHANIEL MAYNE.—The Irish newspapers give much prominence to the circumstances under which Mr. Nathaniel Mayne, the surgeon to the County Longford Infirmary, has been relieved of his duties by the governing body of that institution, subject, of course, to confirmation by the Local Government Board for Ireland of such action. The question at issue between Mr. Mayne and his immediate authority was the attitude, right or wrong, assumed by Mr. Mayne towards Sir Thomas Myles, Consulting Surgeon and Acting Lieutenant-Colonel, R.A.M.C., with the Forces in Ireland, who desired to operate upon a soldier for appendicitis in the wards of the infirmary. Mr. Mayne's contention was that his responsibilities in his official position did not allow him to sanction an operation in the infirmary theatre by Sir Thomas Myles, and Mr. Mayne's immediate authority by their decision must be considered to have taken an exactly opposite view. One side only of the matter has been described to us, but no doubt the Local Government Board for Ireland will have the whole story with full details before them to assist them in a decision which may easily have an important bearing.

# Appointments.

*Successful applicants for vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column, are invited to forward to* THE LANCET *Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week, such information for gratuitous publication.*

BETTY, MOORE M., F.R.C.S. Irel., has been appointed Medical Officer to the Union Hospital, Enniskillen.

BUNTING, DORA E. L., M.D. State Med., M.B. Lond., D.P.H. Camb., has been appointed Temporary Tuberculosis Officer for Sunderland.

CLAPPERTON, T. J. M., L.S.A., has been appointed District Medical Officer to the Daventry Union.

GIBBINS, H. B., M.D. Lond., has been appointed Medical Officer of the Tuberculosis Dispensary established at St. Bartholomew's Hospital in connexion with the National Insurance Act.

GILMOUR, R. W., M.B., B.S. Durh., M.R.C.S., L.R.C.P. Lond., has been appointed District Medical Officer to the Droxford Union.

LAVERTY, T., M.B., B.S. R.U.I., has been appointed Certifying Surgeon under the Factory and Workshop Acts for the Rathfriland District of the county of Down.

MITCHELL, A. PHILP, M.D., Ch.M., F.R.C.S. Edin., has been appointed Temporary Assistant Surgeon at Chalmers Hospital, Edinburgh.

PAPADOPOULOS, T. G., M.B., M.R.C.S., L.R.C.P. Lond., has been appointed House Surgeon to the Miller General Hospital for South-East London, Greenwich-road, S.E.

SHEPHERD, D. R. C., M.B., B.S. Lond., has been re-elected Resident Medical Officer of the Middlesex Hospital.

# Vacancies.

*For further information regarding each vacancy reference should be made to the advertisement (see Index).*

ABERDEEN DISTRICT ASYLUM, Newmachar.—Assistant Physician. Salary £200 per annum, with board.

BARNSLEY, BECKETT HOSPITAL AND DISPENSARY.—Second House Surgeon, unmarried. Salary £120 per annum, with apartments, board, and laundry.

BARRY EDUCATION COMMITTEE.—Assistant School Medical Officer. Salary £300 per annum.

BARRY URBAN DISTRICT COUNCIL ACCIDENT AND SURGICAL HOSPITAL.—House Surgeon. Salary £250 per annum.

BATH, ROYAL UNITED HOSPITAL.—House Physician. Salary £120 per annum, with board, lodging, and washing.

BIRKENHEAD BOROUGH HOSPITAL.—Junior House Surgeon. Salary £100 per annum, with board and laundry.

BIRMINGHAM CITY EDUCATION COMMITTEE.—Radiographer on two, and possibly three, half-days per week. Salary at rate of £75 per annum per half-day's service per week.

BIRMINGHAM CITY MENTAL HOSPITAL, Rubery-hill.—Female Junior Assistant Medical Officer. Salary £200 per annum, with apartments, board, laundry, &c.

BIRMINGHAM GENERAL DISPENSARY.—Resident Medical Officer unmarried. Salary £240 per annum, with apartments, fire, lights, and attendance.

BIRMINGHAM AND MIDLAND EYE HOSPITAL, Church-street.—Senior and Junior House Surgeons. Salary £110 and £100 per annum respectively, with residence and board, &c.

BIRMINGHAM MATERNITY HOSPITAL.—Female House Surgeon for six months. Salary at rate of £100 per annum, with board, residence, and laundry.

BIRMINGHAM UNION.—DUDLEY-ROAD INFIRMARY: Third Assistant Medical Officer. Salary at rate of £170 per annum. Fourth Assistant Medical Officer. Salary at rate of £160 per annum. SELLY OAK INFIRMARY: Assistant Medical Officer. Salary at rate of £180 per annum. All with apartments, rations, laundry, and attendance.

BLACKBURN UNION WORKHOUSE AND COTTAGE HOMES.—Resident Assistant Medical Officer, unmarried. Salary £250 per annum, with apartments, rations, washing, and attendance.

BOLTON INFIRMARY AND DISPENSARY.—Junior House Surgeon and Third House Surgeon. Salary £150 and £130 per annum respectively, with apartments, board, and attendance.

BRADFORD CHILDREN'S HOSPITAL.—House Surgeon. Salary £120 per annum, with board, residence, and laundry.

BRADFORD ROYAL INFIRMARY.—House Surgeon, unmarried. Salary £100 per annum, with board, residence, and washing.

BRADFORD, ST. LUKE'S HOSPITAL AND UNION HOUSE.—Assistant Resident Medical Officer, unmarried. Salary £150 per annum, with rations, apartments, and washing.

BRIDGWATER HOSPITAL.—House Surgeon, unmarried. Salary at rate of £125 per annum, with board, lodging, and washing.

BRISTOL EYE HOSPITAL.—House Surgeon. Salary £100 per annum, with board, residence, and laundry.

BRISTOL GENERAL HOSPITAL.—Resident Obstetric Officer for six months. Salary at rate of £120 per annum, with board, residence, &c.

BROMSGROVE, WORCESTERSHIRE ASYLUM, Barnsley Hall.—Locum Tenens Medical Officer.

BURY INFIRMARY.—Junior House Surgeon. Salary £150 per annum, with board, residence, and washing.

CAMBERWELL INFIRMARY, Brunswick-square, S.E.—Temporary Female Assistant Medical Officer. Salary at rate of £250 per annum, with board, lodging, and washing.

CANTERBURY, KENT COUNTY ASYLUM, Chartham.—Third Junior Assistant Medical Officer. Salary £250 per annum, with quarters, board, washing, &c.

CARDIFF, KING EDWARD VII.'s HOSPITAL.—Female House Surgeon for Ophthalmic and Ear and Throat Departments. Salary £140 per annum, with board, laundry, and residence.

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, Victoria Park, E.—Clinical Assistant.

CITY OF WESTMINSTER UNION INFIRMARY, Fulham-road, S.W.—Second Assistant Medical Officer and Third Assistant Medical Officer. Salary £160 and £140 per annum respectively, with board, residence, and washing.

COVENTRY, COVENTRY AND WARWICKSHIRE HOSPITAL.—House Physician. Salary £110 per annum, with rooms, board, washing, and attendance.

DERBY EDUCATION COMMITTEE.—Temporary Assistant School Medical Officer. Salary £300 per annum.

DERBYSHIRE EDUCATION COMMITTEE.—Assistant School Medical Officer. Salary £300 per annum.

DOUGLAS, ISLE OF MAN, NOBLE'S HOSPITAL.—Resident House Surgeon, unmarried. Salary £150 per annum, with board and laundry.

DUDLEY, GUEST HOSPITAL.—Assistant House Surgeon for six months. Salary £100 per annum, with board, residence, and washing.

ECCLES AND PATRICROFT HOSPITAL.—House Surgeon, unmarried. Salary £70 per annum, with board, lodging, and washing.

EXETER CITY ASYLUM.—Assistant Medical Superintendent. Salary £250 per annum, with apartments, board, laundry, &c.

FIFE DISTRICT ASYLUM, Cupar.—Senior Assistant Medical Officer and Assistant Medical Officer. Salary £220 and £170 per annum respectively, with rooms, board, and attendance.

FULHAM TUBERCULOSIS DISPENSARY.—Senior Medical Officer. Salary £500 per annum.

GLOUCESTER, GLOUCESTERSHIRE ROYAL INFIRMARY AND EYE INSTITUTION.—Assistant House Surgeon for six months. Salary at rate of £80 per annum, with board, residence, and washing.

GREAT NORTHERN CENTRAL HOSPITAL, Holloway, N.—House Physician for six months. Salary at rate of £60 per annum, with board, lodging, residence, and laundry.

GREAT YARMOUTH HOSPITAL.—House Surgeon, unmarried. Salary £200 per annum, with board, lodging, and washing.

GUILDFORD, ROYAL SURREY COUNTY HOSPITAL.—House Surgeon. Salary £150 per annum, with board, residence, and laundry.

HALIFAX ROYAL INFIRMARY.—Second and Third House Surgeons, unmarried. Salary £120 and £100 per annum respectively, with residence, board, and washing.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton, S.W.—Anæsthetist. Salary 50 guineas per annum. Also Assistant Resident Medical Officer. Salary £100 per annum, with board and residence.

HOSPITAL FOR SICK CHILDREN, Great Ormond-street, London, W.C.—Two House Surgeons, unmarried, for six months. Salary £30, with board, residence, &c.

HULL, VICTORIA CHILDREN'S HOSPITAL, Park-street.—Female House Surgeon and Female Assistant House Surgeon. Salary £60 and £50 per annum respectively, with board and laundry.

LEEDS PUBLIC DISPENSARY.—Female Resident Medical Officer. Salary £130 per annum, with board, residence, and laundry.

LEICESTER BOROUGH SANATORIUM AND TUBERCULOSIS DISPENSARY.—Assistant Medical Officer. Salary £300 per annum.

LEICESTERSHIRE EDUCATION COMMITTEE.—Temporary Assistant School Medical Officer. Salary at rate of £300 per annum.

LEWES, EAST SUSSEX COUNTY COUNCIL EDUCATION COMMITTEE.—Assistant School Medical Officer. Salary £320 per annum.

LIVERPOOL, CITY OF.—Female Assistant Medical Officer. Salary £350 per annum.

LIVERPOOL STANLEY HOSPITAL.—House Surgeons and Physicians.

LLANELLY BOROUGH EDUCATION COMMITTEE.—Ophthalmic Surgeon. Salary £50 per annum.

LONDON TEMPERANCE HOSPITAL, Hampstead-road, N.W.—Assistant House Surgeon for six months. Salary at rate of 100 guineas per annum.

MANCHESTER CHILDREN'S HOSPITAL, Pendlebury.—Visiting Surgeon. Salary £100 per annum.

MANCHESTER, COUNTY ASYLUM, Prestwich.—Assistant Medical Officer, unmarried. Salary £250 per annum, with board, apartments, attendance, and washing.

MANCHESTER HOSPITAL FOR CONSUMPTION AND DISEASES OF THE THROAT AND CHEST.—Assistant Medical Officer for the Crossley Sanatorium, Delamere Forest, Cheshire. Salary £100 per annum, with board, apartments, and laundry.

MANCHESTER, HULME DISPENSARY, Dale-street, Stretford-road.—House Surgeon. Salary £180 per annum, with apartments, attendance, coal, and gas.

MANCHESTER NORTHERN HOSPITAL FOR WOMEN AND CHILDREN, Parkplace, Cheetham Hill-road.—House Surgeon. Salary £120 per annum, with apartments and board.

MANCHESTER ROYAL EYE HOSPITAL.—Junior House Surgeon. Salary £80 per annum, with residence, board, and washing.

MANCHESTER ROYAL INFIRMARY.—Five Junior House Surgeons for three months. Board, residence, and laundry provided. Two Senior House Surgeons for six months, Five House Physicians for three or six months, and One House Surgeon to Ear, Eye, and Gynæcological Departments for six months. Salary at rate of £40 per annum, with board, residence, and laundry. All to be unmarried. Also Two Medical Officers for Out-patients and Accidents for six months. Salary at rate of £100 per annum, with board and residence. Also Accident Room House Surgeon for six months. Salary £100 per annum, with board and residence.

MANCHESTER, ST. MARY'S HOSPITALS FOR WOMEN AND CHILDREN.—Resident Surgical Officer at High-street Hospital. Salary £90 per annum, with board and residence. Also House Surgeon for three or six months. Salary at rate of £70 per annum, with board and residence. Also House Surgeon at Whitworth-street West Hospital for three or six months. Salary at rate of £70 per annum, with board and residence.

MANCHESTER, VICTORIA MEMORIAL JEWISH HOSPITAL, Cheetham.—Female Resident Medical Officer for six months. Salary at rate of £100 per annum, with rooms, board, and laundry.

METROPOLITAN HOSPITAL, Kingsland-road, N.E.—Two Assistant House Surgeons for six months. Salary at rate of £40 per annum, with board and washing.

MIDDLESBROUGH COUNTY BOROUGH.—Temporary Chief Tuberculosis Officer.

MIDDLESBROUGH EDUCATION COMMITTEE.—Temporary Assistant School Medical Officer. Salary £300 per annum.

MILLER GENERAL HOSPITAL FOR SOUTH-EAST LONDON, Greenwich-road, S.E.—Junior House Surgeon for six months. Salary £85 per annum, with board, residence, and laundry.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, Queen square, Bloomsbury, W.C.—Temporary Junior House Physician. Salary £100 per annum, with board and residence.

NEWCASTLE, Co. WICKLOW, ROYAL NATIONAL HOSPITAL FOR CONSUMPTION FOR IRELAND.—Assistant Resident Medical Officer. Salary at rate of £200 per annum, with board and residence.

NEWPORT (MON.), ROYAL GWENT HOSPITAL.—Resident Medical Officer. Salary for first six months at rate of £100 per annum, second six months £125, and third six months £150, with board, residence, and laundry.

NOTTINGHAM GENERAL HOSPITAL.—Senior House Physician. Salary £120 per annum, with board, residence, and laundry. Also Assistant House Surgeon for six months. Salary at rate of £100 per annum, with board, residence, and laundry.

PADDINGTON INFIRMARY, 285, Harrow-road, W.—Two Assistant Medical Officers for six months. Salary at rate of £250 per annum, with board, lodging, and washing.

POPLAR HOSPITAL FOR ACCIDENTS, Poplar, E.—Assistant House Surgeon for six months. Salary at rate of £80 per annum, with board and residence.

PRESTON ROYAL INFIRMARY.—Assistant Resident Medical and Surgical Officer. Salary £120 per annum, with board, residence, and laundry.

PUTNEY HOSPITAL, Putney Common, S.W.—Resident Medical Officer. Salary £150 per annum, with residence, board, and laundry.

RICHMOND, SURREY, ROYAL HOSPITAL.—House Surgeon. Salary £150 per annum, with apartments, board, and washing.

ROUSAY AND EGILSHAY, PARISH OF.—Resident Medical Officer. Salary £71 per annum, with free house (partly furnished) and garden.

ROYAL NATIONAL ORTHOPÆDIC HOSPITAL, 234, Great Portland-street, W.—Resident House Surgeon, unmarried. Salary £100 per annum, with board, washing, &c.

ROYAL WESTMINSTER OPHTHALMIC HOSPITAL, King William-street, West Strand, W.C.—Assistant House Surgeon. Salary at rate of £50 per annum, with lunch and tea.

SALFORD ROYAL HOSPITAL.—Resident Surgical Officer and Casualty House Surgeon for six months. Salary at rate of £120 and £100 per annum respectively, with board and residence.

SALFORD UNION INFIRMARY.—Resident Assistant Medical Officer, unmarried. Salary £150 per annum, with apartments, attendance, and rations.

SALISBURY INFIRMARY.—Assistant House Surgeon, unmarried. Salary £75 per annum, with apartments, board, lodging, and washing.

SCARBOROUGH HOSPITAL AND DISPENSARY.—Senior and Junior House Surgeons. Salary £100 and £80 per annum respectively, with board, residence, &c.

SHEFFIELD CHILDREN'S HOSPITAL.—House Surgeon. Salary £150 per annum, with board and residence.

SHEFFIELD ROYAL HOSPITAL.—Assistant House Physician, unmarried. Salary £80 per annum, with board, lodging, and washing

SHEFFIELD ROYAL INFIRMARY.—House Surgeon and Assistant House Physician. Salary £100 per annum, with board and residence.

SOUTHAMPTON, ROYAL SOUTH HANTS AND SOUTHAMPTON HOSPITAL.—Junior House Surgeon for six months. Salary at rate of £120 per annum, with rooms, board, and washing.

SOUTH SHIELDS, INGHAM INFIRMARY AND SOUTH SHIELDS AND WESTOE DISPENSARY.—Junior House Surgeon. Salary £115 per annum, with residence, board, and washing.

STOKE-ON-TRENT, STANFIELD SANATORIUM.—Resident Assistant Medical Officer. Salary at rate of £350 per annum.

STOKE-UPON-TRENT UNION.—Assistant Resident Medical Officer. Rooms and rations provided.

STROUD GENERAL HOSPITAL.—House Surgeon. Salary £120 per annum, with board, lodging, and washing.

TAUNTON AND SOMERSET HOSPITAL, Taunton.—Senior House Surgeon. Salary £120 per annum, with board, lodging, and laundry.

THROAT HOSPITAL, Golden-square, W.—Resident House Surgeon. Salary £75 per annum, with board, residence, and washing.

TRURO, ROYAL CORNWALL INFIRMARY.—House Surgeon, unmarried. Salary £150 per annum, with rooms, board, and washing.

TUNBRIDGE WELLS GENERAL HOSPITAL.—House Surgeon, unmarried. Salary £100 per annum, with board, residence, &c.

VICTORIA HOSPITAL FOR CHILDREN, Tite-street, Chelsea, S.W.—House Physician for six months. Salary £40, with board and lodging.

WAKEFIELD, CLAYTON HOSPITAL.—Senior House Surgeon. Salary £160 per annum, with board, lodging, and laundry.

WALSALL AND DISTRICT HOSPITAL.—Junior House Surgeon and Anæsthetist. Salary £110 per annum, with board, residence, and laundry.

WALTHAMSTOW URBAN DISTRICT COUNCIL HOSPITAL FOR INFECTIOUS DISEASE, Chingford.—Resident Medical Officer. Salary £250 per annum, with rooms and board.

WEST BROMWICH AND DISTRICT HOSPITAL.—House Surgeon and Assistant House Surgeon, unmarried. Salary £150 and £120 per annum respectively, with residence, board, and laundry.

WEST END HOSPITAL FOR DISEASES OF THE NERVOUS SYSTEM, PARALYSIS, AND EPILEPSY, 73, Welbeck-street, W.—Honorary Registrar.

WEST HAM AND EASTERN GENERAL HOSPITAL, Stratford, E.—Junior House Surgeon. Salary at rate of £100 per annum, with board, residence, and washing.

WIGAN, ROYAL ALBERT EDWARD INFIRMARY AND DISPENSARY.—Female Junior House Surgeon. Salary £130 per annum, with board, apartments, and washing.

WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL.—House Surgeon for six months. Salary at rate of £125 per annum, with board, rooms, and laundry.

WOLVERHAMPTON UNION WORKHOUSE.—Assistant Resident Medical Officer and Medical Officer of Cottage Homes, unmarried. Salary £250 per annum, with apartments, rations, &c.

WORCESTER EDUCATION DEPARTMENT.—Female Assistant School Medical Officer. Salary at rate of £300 per annum.

WORCESTER GENERAL INFIRMARY.—Resident Medical Officer. Salary £150 per annum, with board, residence, and washing.

ORKSOP VICTORIA HOSPITAL AND DISPENSARY.—Medical Officer and House Surgeon. Salary £150 per annum, with rooms, coal, light, and attendance.

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**THE Chief Inspector of Factories, Home Office, London, S.W., gives notice of a vacancy for a Certifying Surgeon under the Factory and Workshop Acts at Ollaberry, in the county of Shetland.**

# Births, Marriages, and Deaths.

## BIRTHS.

BUTCHER.—On Jan. 16th, at Delgany, Heene-road, Worthing, the wife of W. J. Butcher, M.R.C.S., of a son.

COMRIE.—On Jan. 12th, at Manor-place, Edinburgh, the wife of John D. Comrie, M.D., F.R.C.P. Edin., of a daughter.

FOULDS.—On Jan. 14th, at Sandon-road, Edgbaston, the wife of Major Foulds, R.A.M.C., a daughter.

GRAY.—On Jan. 10th, at Yew Tree Cottage, West Malling, the wife of Henry Gray, M.R.C.S., of a son.

PHIPSON.—On Dec. 18th, 1914, at Cairo, Egypt, Mrs. E. Selby Phipson, wife of Captain E. Selby Phipson, I.M.S., a daughter.

## MARRIAGES.

THOMAS—GENN.—On Jan. 16th, at St. Mary's, Ely, Martin Phillips Thomas, B.A., M.R.C.S., L.R.C.P., to Marion Brewster, youngest daughter of Billett Genn, of Ely, Cambs.

## DEATHS.

BRYDEN.—On Jan. 16th, at Harmer-street, Gravesend, Surgeon-Major Richard Joseph Dryden, M.D., M.R.C.S., L.R.C.P., aged 58 years.

MERCER.—On Jan. 12th, at Budleigh Salterton, Edward Mercer, M.R.C.S., aged 86 years.

WATSON.—On Jan. 12th, at Hendre, Cheltenham, Deputy Surgeon-General George Alder Watson, I.M.S., Bengal Army (retired), aged 83 years.

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*N.B.—A fee of 5s. is charged for the insertion of Notices of Births, Marriages, and Deaths.*

## BOOKS, ETC., RECEIVED.

BAILLIÈRE, TINDALL, AND COX, London.

Synopsis of the British Pharmacopœia, 1914, and of the Poison Laws of Great Britain and Ireland. Compiled by H. Wippell Gadd, F.C.S., Barrister-at-Law. Eighth edition. Price 1s. net.

Elements of Pharmacy, Materia Medica, and Therapeutics. By Sir William Whitla, M.A., M.D., LL.D. Tenth edition. Price 9s. net.

Aids to Pathology. By Harry Campbell, M.D., B.S. Lond., F.R.C.P. Third edition. Price 3s. 6d. net.

A Text-Book of the Diseases of the Nose and Throat. By Jonathan Wright, M.D., Director of the Department of the Laboratories, New York Post-Graduate Medical School and Hospital, and Harman Smith, M.D., Surgeon to the Throat Department of the Manhattan Eye, Ear, and Nose Hospital. Price 21s. net.

BUTTERWORTH AND CO., London and the Colonies.

Butterworth's Workmen's Compensation Cases, October, 1913—October, 1914. Edited by His Honour Judge Ruegg, K.C., and Douglas Knocker, Barrister-at-Law, M.B. Lond., D.P.H., assisted by E. T. Dale, Barrister-at-Law. Price 12s. 6d. net.

CASSELL AND CO., London.

Manual of Chemistry, Theoretical and Practical, Inorganic and Organic. Adapted to the Requirements of Students of Medicine. By Arthur P. Luff, M.D., B.Sc. Lond., F.I.C., and Hugh C. H. Candy, M.A., B.Sc. Lond., F.I.C. Fifth edition, enlarged. Price 8s. 6d. net.

CHICAGO SCIENTIFIC PUBLISHING COMPANY, 221, S. Ashland Boulevard, Chicago.

The Intervertebral Foramen. An Atlas and Histologic Description of the Intervertebral Foramen and its Adjacent Parts. By Harold Swanberg, Member of the American Association for the Advancement of Science. With an Introductory Note by Professor Harris E. Santee. Price $3.

CHURCHILL, J. AND A., London.

Anatomy of the Human Skeleton. By J. Ernest Frazer, F.R.C.S. Eng., Lecturer on Anatomy in the Medical School of St. Mary's Hospital. Price 21s.

The Book of Prescriptions, with Notes on the Pharmacology and Therapeutics of the More Important Drugs and an Index of Diseases and Remedies. By E. W. Lucas, F.I.C., F.C.S. With Introduction by Arthur Latham, M.A., M.D., F.R.C.P. Tenth edition. Price 6s. 6d. net.

The Book of Pharmacopœias and Unofficial Formularies. By E. W. Lucas, F.I.C., F.C.S., and H. B. Stevens, F.I.C., F.C.S. Price 7s. 6d. net.

GOVERNMENT PRINTING OFFICE, Washington.

Carcinoma of the Thyroid in the Salmonoid Fishes. By Harvey R. Gaylord and Millard C. Marsh.

HARRISON AND SONS, London.

Notes on Nursing. By Florence Nightingale. New edition.

HAZELL, WATSON, AND VINEY, London.

Hazell's Annual for 1915. Edited by T. A. Ingram, M.A., LL.D. Price 2s. 6d. net.

HEINEMANN, WILLIAM, London.

How Belgium Saved Europe. By Charles Sarolea, Ph.D., Liège, Litt.D. Brussels. With a Preface by Count Goblet D'Alviella. Price 2s. net.

Mutual Aid, a Factor in Evolution. By P. Kropotkin. Price 1s. 6d. net.

HOEBER, PAUL B., New York.

Fever: Its Thermotaxis and Metabolism. By Isaac Ott, A.M., M.D., Professor of Physiology, Medico-Chirurgical College, Philadelphia.

# Notes, Short Comments, and Answers to Correspondents.

## CAMPAIGN LITERATURE AGAINST VENEREAL DISEASE.

SPEAKING before the Royal Commission on Venereal Diseases, Sir Thomas Barlow expressed his belief that the public mind was now in a state of most promising preparedness to receive admonition and to recognise the moral obligation of dealing with these subjects. In 1913 a declaration of leading members of the medical profession in the daily press protested against the "conspiracy of silence" on the subject. Mr. F. W. Giles, M.B. Durh., a member of the council of the White Cross League, has published through Messrs. P. S. King and Son, price 6d., a little pamphlet on "The Campaign against Syphilis," which seems a suitable contribution to the task of public enlightenment. It deals with the nature and effects of venereal disease and with the importance to the community of its treatment and prevention. It is dedicated by permission to Sir Thomas Barlow.

## THE "PERMUTIT" SYSTEM OF WATER SOFTENING.

AN interesting demonstration of improved methods of water softening was given at the offices of United Water Softeners, Limited, Imperial House, Kingsway, London, W.C., on Jan. 12th. The "permutit" system may be described first, as its simplicity enables it to be applied locally for domestic purposes. Permutit is substantially an artificial zeolite, a compound of silica, alumina, and soda. Its essential property is that known as base exchange. In contact with hard water, for example (the calcium and magnesium salts constituting the hardness), permutit effects an exchange. It abstracts these salts in exchange for a soda complement, so that hard water passed through it becomes soft because the lime and magnesium salts are left behind and the corresponding sodium salts go forward. The action is perfectly automatic, and when the soda permutit is exhausted it may be regenerated by passing through the permutit column or cylinder some salt solution, when the calcium and magnesium are eliminated as chlorides in favour of the retention of soda permutit ready again for the treatment of further volumes of hard water. This method is capable of reducing a water of a high degree of hardness to one showing no hardness at all, and which therefore instantly forms a lather with soap. In some cases the permutit system is employed to finish the work of well-known economical softening methods, as, for example, those depending upon the addition of lime or of black ash (crude carbonate of soda). The utmost efficiency of these chemical methods in removing lime and magnesium salts is, however, reached when the treated water still retains some 5 degrees of hardness. The water so far softened is reduced to an imperceptible hardness when it is passed through the permutit column. By a combination of these processes, the "Lassen-Hjort" and the permutit, an economical and complete softening of the water is effected. For domestic work all that is necessary is a permutit cylinder, and a very favourable impression of its efficiency has been made upon those occupying houses situated in hard water districts where it has been installed. When treated with manganese, permutit takes iron completely out of water. The advantages of a softened water-supply need not be set out. In our own columns we have often drawn attention to the hardships of a hard supply, but we think that the consumer should not be called upon to remedy the evil and that this is a duty which should fall upon the supply company. So long, however, as that is not the case, permutit will effect a revolution of the utmost value to the householder.

## PERSONAL MEDICINE CASE FOR USE ON ACTIVE SERVICE.

SINCE the commencement of the war medical men have frequently been asked for advice upon the selection of medical equipments for personal use whilst on active service, and in view of this Messrs. Burroughs Wellcome and Co. have introduced "Tabloid" Brand Medicine Pocket-case, No. 109, which is specially adapted to meet the requirements of those serving with His Majesty's forces. The contents of this case may be varied to order, so that the medical man may prescribe the particular products which he considers best suited to the individual needs of his patient. The case itself is of polished, black-japanned metal. In design it is flat, and similar in shape and size to a large pocket cigar-case. Consequently it fits conveniently into the pocket of the service jacket, its rounded corners preventing any risk of tearing the material. The tubes of "Tabloid" and "Soloid" medicaments are securely held in position by an aluminium framework, divisions of which come between the phials, thus obviating the use of loose packing. In the case of liquids each glass container is enclosed in a metal case, rendering it impossible for any of the contents to leak out and soil other products. Further particulars may be obtained from Messrs. Burroughs Wellcome and Co. on application, together with a list of standard contents, which include both medicinal and first-aid requisites.

## HOW TO PRESERVE HEALTH IN WAR TIME.

THE Women's Imperial Health Association, of 7, Hanover-square, W., have issued a word in season to the women of Great Britain in the shape of a four-page leaflet, entitled "Health in War Time." It consists of useful information under the following heads: Keep the Homes Clean; Keep Ourselves Clean; Get to Love Fresh Air; Eat the Right Food; Drink the Right Drinks; Cultivate Regular Habits; Help to Prevent Epidemics; and Take Care of Our Convalescent Soldiers. How we may all do these things and thus help the Empire is explained in the leaflet.

**COMMUNICATIONS not noticed in our present issue will receive attention in our next.**

# Medical Diary for the ensuing Week.

## SOCIETIES.

**ROYAL SOCIETY, Burlington House, London, W.**

THURSDAY.—Papers:—Mr. W. W. C. Topley: The Influence of Salt-concentration on Hæmolysis (communicated by Prof. F. W. Mott).—Mr. G. Smith: The Life-cycle of Cladocera, with Remarks on the Physiology of Growth and Reproduction in Crustacea (communicated by Mr. E. S. Goodrich).—Mr. T. Goodey: Investigations on Protozoa in Relation to the Factor Limiting Bacterial Activity in Soil (communicated by Prof. F. W. Gamble).—Mr. S. Hatta: On the Mesodermic Origin and the Fate of the so-called Mesectoderm in Petromyzon (communicated by Prof. E. W. MacBride).—Prof. J. C. Bose: The Influence of Direction of Homodromous and Heterodromous Electric Currents on Transmission of Excitation in Plant and Animal (communicated by Prof. S. H. Vines).

**ROYAL SOCIETY OF MEDICINE, 1, Wimpole-street, W.**

TUESDAY.
SECTION OF PSYCHIATRY (Hon. Secretaries—Bernard Hart, G. F. Barham): at 8.30 P.M.
*Presidential Address:*
Dr. F. W. Mott: The Application of Physiology to the Study of Mind in Health and Disease.

THURSDAY.
SECTION OF NEUROLOGY (Hon. Secretaries—T. Grainger Stewart, H. Campbell Thomson): at 8.30 P.M.
*Presidential Address:*
Dr. H. G. Turney: Vasomotor Neuroses.

**MEDICAL SOCIETY OF LONDON, 11, Chandos-street, Cavendish-square, W.**

MONDAY.—8.30 P.M., X Ray Evening. Demonstration and Exhibition of Items of Interest connected with the War by Dr. I. Bruce, Sir James M. Davidson, Dr. H. Humphris, Dr. A. C. Jordan, Dr. H. Orton, Mr. G. Scott, Dr. S. Melville, Dr. R. Knox, and others.

**MEDICO-LEGAL SOCIETY, 11, Chandos-street, Cavendish-square, W.**

TUESDAY.—8.30 P.M., Exhibition of Specimens. Resolution as to Donation to The Professional Classes' Relief Fund. Sir John Collie: Fraudulent and Neurasthenic Cases (discussion to be opened by Dr. F. O. Arnold).

**HUNTERIAN SOCIETY.**

WEDNESDAY.—4 P.M., Visit to the Pathological Department of St. Bartholomew's Hospital. Demonstrations will be given of Wassermann's Reaction, Estimation of Blood Sugar, Abderhalden's Serum-diagnosis, Estimation of Alveola $CO_2$, Projectoscope, Recent Additions to the Hospital Museum.

**HARVEIAN SOCIETY OF LONDON.**

THURSDAY.—8.15 P.M., Clinical Meeting at Paddington Green Childen's Hospital. Cases will be shown.

## LECTURES, ADDRESSES, DEMONSTRATIONS, &c.

**POST-GRADUATE COLLEGE, West London Hospital, Hammersmith-road, W.**

MONDAY.—10 A.M., Dr. Simson: Diseases of Women. 10.30 A.M., Medical Registrar: Demonstration of Cases in Wards. 12 noon, Dr. Bernstein: Pathological Demonstration. 2 P.M., Medical and Surgical Clinics. X Rays. Mr. D. Armour: Operations. Dr. Pritchard: Bacterial Therapy Department. Mr. B. Harman and Mr. Gibb: Diseases of the Eye.

TUESDAY.—10 A.M., Dr. Owen: Demonstration of Cases in Wards. 12 noon, Mr. T. Gray: Demonstration of Fractures, &c. 2 P.M., Medical and Surgical Clinics. X Rays. Mr. Baldwin: Operations. Dr. Davis: Diseases of the Throat, Nose, and Ear. Dr. Pernet: Diseases of the Skin.

WEDNESDAY.—10 A.M., Dr. Saunders: Diseases of Children. Dr Davis: Operations of the Throat, Nose, and Ear. 11 A.M., Mr. Souttar: Demonstration of Minor Operations. 12 noon, Lecture:—Mr. Souttar: Abdominal Diagnosis. 2 P.M., Medical and Surgical Clinics. X Rays. Mr. Pardoe: Operations. Dr. Simson: Diseases of Women. Mr. Gibb: Diseases of the Eye.

THURSDAY.—9 A.M., Dr. Bernstein: Bacterial Therapy Department. 12 noon, Lecture: Dr. G. Stewart: Neurological Cases. 2 P.M., Medical and Surgical Clinics. X Rays. Mr. D. Armour: Operations. Mr. B. Harman: Diseases of the Eye.

FRIDAY.—10 A.M., Dr. Simson: Gynæcological Operations. 10.30 A.M., Surgical Registrar: Demonstration of Cases in Wards. 12.15 P.M., Lecture:—Dr. Bernstein: Applied Pathology. 2 P.M., Medical and Surgical Clinics. X Rays. Mr. Baldwin: Operations. Dr. Davis: Diseases of the Throat, Nose, and Ear. Dr. Pernet: Diseases of the Skin.

SATURDAY.—10 A.M., Dr. Saunders: Diseases of Children. Dr. Davis: Operations of the Throat, Nose, and Ear. Mr. B. Harman: Eye Operations. 12 noon, Lecture:—Mr. Souttar: Surgical Anatomy of the Abdomen. 2 P.M., Medical and Surgical Clinics. X Rays. Mr. Pardoe: Operations.

**CENTRAL LONDON THROAT, NOSE, AND EAR HOSPITAL**, Gray's Inn-road, W.C.

TUESDAY.—3 P.M., Lecture:—Dr. Dan McKenzie: Endoscopy.

**THE THROAT HOSPITAL**, Golden-square, W.

MONDAY.—5.15 P.M., Special Demonstration of Selected Cases.
THURSDAY.—5.15 P.M., Clinical Lecture.

**ROYAL INSTITUTION OF GREAT BRITAIN**, Albemarle-street, Piccadilly, W.

TUESDAY.—3 P.M., Prof. C. S. Sherrington: Muscle in the Service of Nerve. (Lecture II.)

THURSDAY.—3 P.M., Mr. H. G. Plimmer: Modern Theories and Methods in Medicine—Lecture II.: Immunity (Illustrated by experiments, micro-photographs, &c., and Cinematograph films.)

FRIDAY.—9 P.M., Dr. D. Clerk: Gaseous Explosions.

**CHADWICK PUBLIC LECTURES**, Lecture Hall, Royal Society of Arts, John-street, Adelphi, W.C.

FRIDAY.—5.15 P.M., Dr. F. M. Sandwith: War and Disease—III., The Great European War.

**MANCHESTER HOSPITALS POST-GRADUATE CLINICS.**

THURSDAY.—ANCOATS HOSPITAL, Mill street.—4.30 P.M., Mr. H. Platt: Birth Palsies.

*For further particulars of the above Lectures, &c., see Advertisement Pages.*

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### THE INDEX TO THE LANCET.

THE Index and Title-page to Vol. II. of 1914 were given in THE LANCET of Dec. 26th, 1914.

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*(Taken daily at 8.30 a.m. by Steward's Instruments.)*

THE LANCET Office, Jan. 20th, 1915.

| Date. | Barometer reduced to Sea Level and 32° F. | Direction of Wind. | Rainfall. | Solar Radio in Vacuo. | Maximum Temp. Shade. | Min. Temp. | Wet Bulb. | Dry Bulb. | Remarks. |
|---|---|---|---|---|---|---|---|---|---|
| Jan. 14 | 30·080 | W. | ... | 55 | 52 | 45 | 47 | 50 | Cloudy |
| ,, 15 | 29·830 | W. | 0·10 | 69 | 52 | 47 | 45 | 47 | Cloudy |
| ,, 16 | 29·390 | N.W. | 0·01 | 65 | 47 | 45 | 42 | 45 | Cloudy |
| ,, 17 | 29·970 | N.W. | ... | 62 | 40 | 35 | 34 | 37 | Fine |
| ,, 18 | 30·364 | N. | ... | 57 | 41 | 35 | 32 | 35 | Fine |
| ,, 19 | 30·470 | W. | ... | 47 | 45 | 35 | 37 | 38 | Overcast |
| ,, 20 | 30·246 | S.W. | ... | 51 | 48 | 38 | 42 | 43 | Overcast |

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